





Vol. 7: No. 1 February, 1977.



THE
VICTORIAN ENTOMOLOGIST



Journal of
The ENTOMOLOGICAL
SOCIETY of VICTORIA

Regd. at G.P.O. Melb. for transmission by post
as a periodical - Category B.

BINDER - FIX TO FIRST

Membership

Any person with an interest in entomology shall be eligible for Ordinary Membership. Members of the Society include professional, amateur and student entomologists, all of whom receive the Society's journal, the "Victorian Entomologist". The Society encourages corporate membership of schools and study groups of libraries and of academic staff.

Objectives

The aims of the Society are:-

- (a) to stimulate the scientific study and discussion of all aspects of entomology,
- (b) to gather, record and disseminate knowledge of all Australian insect species,
- (c) to compile a comprehensive list of all known Victorian insect species, and
- (d) to bring together in a congenial and scientific atmosphere all persons interested in entomology.

Meetings

The Society's meetings are held at Clunies-Ross House, National Science Centre, 191 Royal Parade, Parkville, V., at 8 p.m. sharp on the second-last Friday of even months, with the possible exception of the December meeting, which may be held one week earlier. Lectures by guest speakers or members are a feature of most meetings, at which there is also ample opportunity for informal discussion between members with similar interests.

Annual Subscriptions for 1976

Ordinary Member	5.00	(Aust.)	8.00	(U.S.)
Student Member under 18	2.00	"	4.00	"
Associate Member	2.00	"	4.00	"

No separate Joining Fee is payable. Associate Members, resident at the same address as, and being the immediate relatives of an Ordinary Member, do not automatically receive a separate copy of the Society's publications, but in all other respects rank as Ordinary Members.

Contributions to
The "Victorian Entomologist"

The Society welcomes contribution of all papers, articles or notes for publication within the journal. Contributions are not restricted to members, but should be responsible and original, and preferably typed, using double spacing. Statements and opinions expressed are the responsibility of the respective authors, and need not necessarily reflect the policies of the Society.

February, 1977

The "Victorian Entomologist"

ENTOMOLOGICAL SOCIETY
OF VICTORIA

OFFICE BEARERS

PRESIDENT

Mr. J.C. Le Souef, Godfrey St., Blairgowrie, V. 3942, Telephone (059)-88-8413

Vice-Presidents

Dr. T.R. New, Zoology Dept., Latrobe University, Bundoora, V. 3083.
Phone: 479-2247.

Mr. D. Holmes, "Holmden", Red Hill, V. 3937.

Hon. Sec.: Mr. A.F. Atkins, 18/17-19 Spring Rd., Springvale South, V. 3172.

Hon. Treasurer.: Mr. R. Condron, 96 Shannon St., Box Hill North, V. 3129.
Phone: 86-8976, A.H. 88-6300.

Editor.: Mr. R.G. McMahon, 6 North Circular Rd., Tullamarine, V. 3043.
Phone: A.H. 538-4109

Councillors: Mrs. J. Burns, Messrs. G. Burns, P. Carwardine, R. Field,
F. Hallgarten, R. Manskie, W.H.B. Quick, O. Rogge.

DIARY OF COMING EVENTS

February 18th General Meeting Clunies-Ross House at 8 p.m.
Talk by Mr. O.M. Rogge "Insect Photography".

February 20th Collecting excursion to Ballarat - Skipton area.

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R E P O R T S and N O T I C E SGENERAL MEETING: Friday, December 10, 1976.

The President, Mr. J.C. Le Souef chaired the meeting, which was the last for the year.

Apologies were received from Mr. and Mrs. D. Holmes, Mr. D. Crosby, and Mr. N. Quick. The minutes of the October General Meeting were read and confirmed.

General Business: Difficulties encountered by the Editor, Mr. R. McMahon, in reproducing the last journal has highlighted the urgent need for the purchasing of a duplicator. It was agreed that council would look into this matter.

Following the recent visit of the eminent USA entomologist, Prof. Charles Remington, it was noted by Mr. Le Souef that Dr. I.F.B. Common, Div. of Entomology, Canberra, has been nominated for Vice-President of the Lepidopterists Society (USA) for 1977.

Congratulations were offered to Mr. Peter Kelly on the successful completion of a first year Zoology and Botany Course at Royal Melbourne Institute of Technology.

Mr. Le Souef commented on the large numbers of migratory beetles which have been noticed lately. Swarms of these beetles have been seen in various suburbs of Melbourne and have received attention in recent Radio and TV reports. Mr. R. Fields confirmed that enquiries from suburban residents had been received by the Agriculture Department, Burnley about the swarms. The Department would be interested in any observations of the Life-History of these beetles, which are thought to feed on flower anthers and also perhaps on mites and aphids.

Excursion: Mr. Peter Carwardine has drawn up plans for the next collecting excursion. These plans will be further discussed at the February Meeting. Information on this excursion to the Ballarat-Skipton area will be available at a later date.

Treasurer's Report: Mr. R. Condron read a credit balance of \$497.21 and Publications Fund standing at \$221.90.

Miscellaneous: Collecting notes were received from Mr. R. Field, on Caper White butterflies ovipositing on Acacia pendula at Tecoma; from Mr. P. Kelly, on the beetle abundance in the Mallee this year; from Mr. P. Carwardine, on the recent Rushworth excursion; from Mr. M. Hunting, on collecting near Ulladulla, NSW; Mr. A. Atkins on abundance of insects at Bundaberg, following unseasonal heavy rains in South-East Queensland in early summer this year; and Mr. Le Souef on collecting in the Grampians.

Excellent colour slides were shown during the evening. They included butterflies and beetles of Europe, presented by Mr. R. McMahon and Victorian insects presented by Mr. and Mrs. G. Burns.

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Reports and Notices (cont.)

Ideas were tentatively put forward for this Society's celebration of our 1977 Jubilee Year. Victoria is also Host State to this coming year's Australian Entomological Society Annual General Meeting, to be held in conjunction with ANZAAS. It was suggested that exhibits, publicizing the Ent. Soc. of Vic. would be an appropriate exercise for next year's activities.

Exhibits:

Mr. Mark Hunting:	Butterflies of Southern NSW and Victoria.
Mr. Bob Condron:	Victorian insects.
Mr. Ray Manskie:	Live early stages of Satyridae.
Mstr. Kelvin Dunn:	A Gynandromorph of <u>Anaphaeis java teutonia</u> <u>Precis villida calybe</u> aberration.

MINUTES OF THE COUNCIL MEETING HELD AT CLUNIES-ROSS HOUSE ON FRIDAY,
FEBRUARY 4TH, 1977:

The President, Mr. J. C. Le Souef, opened the meeting and welcomed the council members. Apologies were received from David Crosby, David Holmes, Ray Manskie and Ray McMahon.

The council agreed that the purchase of a second-hand duplicator would be held over until a suitable central, permanent place was found to house the machine. Dr. T. New offered to make available a suitable type-writer that would maintain an adequate standard of stencil reproduction.

Mr. F. Hallgarten requested that Committee meetings be held more frequently.

Treasurer's Report: Mr. R. Condron reported a credit for the close of 1976 of \$698.76 which included \$216.90 Publications Fund and \$350.00 in ENTRECS. There were 81 financial members.

Mr. Condron reminded the Council that subscriptions for 1977 were now due.

Jubilee Year - Banquet: Mr. Le Souef announced that this year is the 50th anniversary of the foundation of the Club. He proposed that a Jubilee Banquet be held to celebrate the achievement.

The Committee agreed that all members, friends and relations should be invited, and that an Honorary Guest list be drawn up inviting distinguished members of our club and associated clubs to the Banquet.

Mr. Atkins agreed to make enquiries into costs, date and venue for the Banquet. Notification of this important function will be given elsewhere in this magazine.

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Minutes of the Council Meeting (cont.)

Jubilee Year: - Show A second proposal was put to the Committee by Mr. Le Souef. He proposed that a Jubilee Show be staged next spring, preferably at a date that follows the Australian Entomological Society General Meeting which is to be held in Melbourne in conjunction with the ANZAAS CONGRESS. It was suggested that the Jubilee Show would aim to interest the general public in the activities of our Society. The exhibits would include live insects etc., and photography and insect illustration. Members of the Society would make themselves available to manage the exhibits and answer the public's queries. It was suggested that the committee would make further enquiries into the availability of a venue for the show and stands, display tanks, live material etc., and in due course the media would be contacted to advertise the event, and that interested parties be invited to include exhibits and display material for the show.

Walkie Talkie: The Society is applying for a licence to use a portable 2-way, 1 watt Radio System for use in field excursions and extended surveys. Initially, the Society is applying for a licence covering two transceiver sets only and experience gained with these may lead to an extension of this system.

Once obtained, the Society may agree to increase the number of handsets in use at the request of members, who must, of course, meet the cost of these handsets and additional licence fee.

ENTOMOLOGICAL NEWS: February Excursion - 1977.

An excursion will be held on Sunday, February 20th to the Ballarat-Skipton area. Cars will depart from Racecourse Road, opposite Ellis Motors near Boundary Road, North Melbourne. Those without transport can get there by Essendon tram which leaves Flinders and Elizabeth Streets at 9.15 a.m. Cars will meet up again at crossroads near Smythes Creek 6 miles (= 9½ km) South-west of Ballarat on the Glenelg Highway.

Peter Carwardine.

JUBILEE DINNER: Members of this Society, their families and friends, are invited to a dinner to celebrate the 50th Anniversary of the Foundation of The Entomological Society of Victoria.

The dinner will be held at -

IAN CLUNIES ROSS MEMORIAL FOUNDATION,
191 Royal Parade,
PARKVILLE. V. 3052.

on FRIDAY, 22ND APRIL at 7.30 p.m.

Cost: Approximately \$8 per person.

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ENTOMOLOGICAL NEWS (cont.)Jubilee Dinner (cont.)

Please reply to - Mr. Bob Condron, 'phone 86-8976, A.H. 88-6300
 or Mr. Nigel Quick, 'phone 560-8145
 by 10th April, 1977.

A. Atkins.

Dr. and Mrs. Norman B. Tindale: During the New Year weekend, Dr. Norman B. Tindale and his wife, Muriel, spent several days at Blairgowrie on their return journey to California via Canberra.

Because of the holiday season, it was only possible to arrange for a few members to meet them. Subjects of mutual interest were discussed and many questions answered. He showed a series of Hepialid slides of specimens from various parts of the world, including several extremely rare species known from only one specimen.

As usual, it was a treat to have this world scientist among us again, but such a pity that his visit could not have come at a time of the year when the whole club could have participated in discussions with him.

Mr. and Mrs. John Peters: Closely following on that of the Tindale's, John and May Peters from Sydney also spent a couple of days at Blairgowrie. Here again, it was difficult to arrange for members to meet them because of the time of year.

John's work on the Waterhouse butterfly collection is well known as are his other butterfly papers. An afternoon was spent at Red Hill which added a few specimens to his collection.

In a recent letter, he told of a "cloud of coppers" and a number of other species of butterflies at a spot on the Cann River-Bombala Road. He also did well at Brown Mountain.

Max and Barbara Moulds: There was a surprise telephone call from Max Moulds in Cairns, seeking information on a final reference for his Bibliography of Australian Butterflies. He said that they had done quite well so far and were off next day for Northern Territory.

His monumental work on this bibliography should be out by the end of the year with the final checks on the galley proofs. Covering every butterfly reference for 200 years, this book will be of great value to everyone interested in butterflies.

Geoff and Sybil Monteith: Friends of Geoff and Sybil Monteith will be pleased to learn that they have a bouncing son, Neil Curtis, perhaps a potential aradidist for the future.

Geoff is planning to visit the islands to the north of Cape York this year, in his continuing task of listing the butterflies of the region.

J. C. Le Souef.

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Notes on Victorian Butterflies: The Lycaenid Theclinessthes onycha, that has Acacia feeding larvae, is known only from a few records of capture in Victoria, though it is commoner in NSW and Queensland. It occurs at Hattah and at Mt. Hope in Victoria, where it can be collected flying around Wattles. The life history of this species is unknown from this State, but it undoubtedly breeds in the northern areas of Victoria. It is of interest that a male of this butterfly was taken in January this year at Mt. Macedon. The specimen was hill-topping, a common habit of this species, and it is not known if it had bred locally or whether it had been blown there from further north.

Areas to the South-west of Natimuk in Western Victoria contain several salt lakes many of which are surrounded by the sedge Gahnia filum. These localities appear very similar to the type-locality of the skipper Hesperilla flavescens at Altona. Skipper larvae taken last year from the sedges at Natimuk were reared at my home and proved to be variable in wing pattern between Hesperilla donnyssa and H. flavescens. The complex distribution of H. donnyssa has not been studied to the full, and further locality records of Gahnia filum feeding specimens from Western Victoria and SE South Australia might rekindle the flavescens validity question. The larvae taken near Natimuk (the area is known as Jaka Lakes) included two second instars which reached maturity at Christmas, but have not as yet pupated. It is anticipated that these will pupate and emerge as an Autumn brood, but it is doubtful that these are the progeny of the spring brood as they were taken very early in spring. Aestivation of final instar larvae of these species might explain the 'double brood' cited in some literature.

Andrew Atkins.

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MORE LITTLE DESERT BUPRESTIDAE:

by Keith Hately

STIGMODERA AMPLIPENNIS
" AUSTRALASIAE

MERIMNA ATRATA

STIGMODERA AMPLICOLLIS
" AENICORNIS

NEO-BUPRESTIS AUSTRALIS

STIGMODERA BAKEWELLI
" BIMACULATA
" CASTELNAUDI
" CRENATA
" CONGENER
" CYLINDRACEA
" CINCTA
" DECEMACULATA
" DELECTABILIS
" FULVIVENTRIS
" FLAVOCINCTA
" FLAVICOLLIS
" FULVIVENTRIS VAR GUTTIGERA
" FUSCA (PARRYI)
" GRATA
" GIBBICOLLIS
" HEROS
" INDISTINCTA
" IOSPILOTA
" INCONSPICUA
" IGNIA
" JACQUINOTI
" JUCUNDA
" JEKELLI
" KIRBYI
" LILIPUTURNA
" MACULARIA
" MALLEANA (PICTUS)
" MITCHELLI
" MUSTELA MAJOR
" OCTOSPILOTA
" OCTOMACULATA
" PLAGIATA
" PALLIDIVENTRIS
" PARALLELA
" PARVICOLLIS
" PICTA
" PUBICOLLIS
" RUFIPENNIS
" RUBRICAUDA
" ROBUSTA
" SUTURALIS

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MORE LITTLE DESERT BUPRESTIDAE (cont.)

STIGMODERA SCALARIS
 " SIMULATA
 " SEXPLAGIATA
 " SANGUINOSA
 " SAGITTARIA
 " SCALARIS VAR VIRIDIS
 " SPLENDIDA
 " SANGUINIVENTRIS
 " THOMSONI
 " VITTATA
 " VARIUS
 " VEGETA
 " ZANTHOPILOSA
 MELOBASIS COSTATA
 " CUPIFERA PRASINA
 " CYNAPENNIS
 CISSEIS NEBUCULOSA
 " SCABROSULA
 DIADOX SCALARIS
 " ERYTHRURUS

A number of species in the collection await final identification.

Errata

The membership list published in last December issue of the Victorian Entomologist contained the following errors:-

Mr. N. A. Stewart should read Mrs. N. R. Stewart.

Mr. Keith Hateley's correct address is RMB.382, Nhill. V. 3418.

The first part of the paper discusses the importance of maintaining accurate records of all transactions. It is essential for the company to have a clear and concise system in place to ensure that all data is properly recorded and stored. This will allow for easy access and retrieval of information when needed.

The second part of the paper focuses on the importance of maintaining accurate records of all transactions. It is essential for the company to have a clear and concise system in place to ensure that all data is properly recorded and stored. This will allow for easy access and retrieval of information when needed.

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April, 1977.

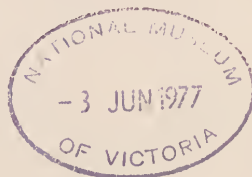
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President

Mr J.C. Le Souëf, Godfrey Street, Blairgowrie, V. 3942. 'Phone 059-888413

Vice-presidents:

Dr T.R. New, Zoology Dept., Latrobe University, Bundoora. V. 3083. 'Phone 479-2247

Mr David Holmes, "Holmden", Red Hill. Victoria.

Hon. Secretary: Mr A.F. Atkins, 18/17-19 Spring Road, Springvale South. V. 3172.

Treasurer: Mr R. Condrón, 96 Shannon Street, Box Hill North, V. 3129.
86-8976 (B.H.), 88-6300

Councillors: Mrs J. Burns, Messrs. G. Burns, P. Carwardine, R. Field, F. Hallgarten,
R. Manskie, W.N.B. Quick, O. Rogge.

Diary of Coming Events

Friday, April 22, 1977. Entomological Society of Victoria Jubilee Dinner.

Science Club Dining Room, Clunies-Ross House, 191 Royal Parade, Parkville. 7.30 p.m.

Please note that this function will replace the General Meeting normally held on
this date.

Reports & Notices

GENERAL MEETING: Friday, 18th. February, 1977 at Clunies-Ross House.

Mr J.C. Le Souëf, our President, opened the first General Meeting for 1977, and welcomed all members and friends. Visitors included Mr & Mrs P. Williams. Apologies were received from Mr D. Stewart, Miss L. White, Mr & Mrs R. Field. Mr Laurie Dunn and Master Kelynn Dunn were welcomed as new members of the Society. Mr Dunn is interested in the filming of insects, and Kelynn is a keen observer and collector of lepidoptera.

Correspondence: A letter was received from Mrs Norma Harrison of Stanhope, V.

Minutes of the last General Meeting held on the 10th. of December were read and received.

Treasurer's Report: Mr Gordon notified the members of a credit of \$449.76 with \$216.90 in the Publications Fund. The 1976 figures were finalised at \$698.76 with 81 financial members.

General Business: Dr T.R. New suggested that two extra General Meetings would help make the Society more viable, and add interest during the winter months. Further suggestions by the Councillors were put forward to make these additional meetings more informal, with exhibits, talks, and refreshments. It was pointed out that these extra meetings should not include extra magazine publications which would add burdens to office bearers; this could also mean that the constitution would have to be altered. It was agreed that the extra Members' Night would best be introduced in the spring or winter months.

Mr Le Souëf reminded those present that preparations were under way for this year's Jubilee Celebrations commemorating fifty years since the foundation of the Society. The celebrations will be in the form of a Jubilee Show held later in the year -- the details of which appeared in the February issue of the Victorian Entomologist.

Guest Speaker: Mr Le Souëf introduced Mr Otto Rogge who gave an address on Insect Macro-photography. He explained the use of various equipment such as a single-lens reflex camera, and accessories including bellows, extension rings and macro-lenses. Mr Rogge explained the difficulties in close-up photography which necessitated the solving of parallax and depth-of-field problems. The utilisation of high-speed film and electronic flash were admirably demonstrated in an enchanting series of insect micro-photography slides, depicting a large number of Australian and European insects and spiders. Emphasis was placed on the value of such micro-photography for taxonomic work on native wasps.

Mr Le Souëf called upon Dr New to move a vote of thanks to Mr Rogge for his informative and classically-presented address.

Exhibits: Two extremely large 'bird-eating' spiders, accompanied by equally-large spider-hunting parasitic wasps, collected recently in the Matto-Grosso Jungle of Brazil, were exhibited by Dr New. (Dr New detailed the specialised use of a machete as collecting equipment of these specimens.) Alpine satyridae collected in the Falls Creek area were exhibited by Mr Condron.

Errata: Publications Fund figure (Feb. 1977 issue) should read \$216.90 not \$221.90.

April, 1977.

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COUNCIL MEETING: Minutes of the meeting of April 1st, 1977, held at Clunies-Ross House.

The President, Mr J.C. Le Souëf chaired the meeting. Apologies were received from Messrs. R.C. McMahon, R. Condron, and D. Holmes.

Minutes of the last Council Meeting were confirmed, and correspondence read and received. This included a letter from Mr T. Greaves accepting the invitation to the Jubilee Dinner. Letters were also received from Mr D.F. Crosby outlining recent moves by the Aust. Ent. Soc. towards repeal of Customs Regulation 13A. The Society's Licence for operation of a radio handphne station was also tabled.

Financial Report: Credit balance at 1.1.1977 was \$ 570.86, plus the publication fund of \$ 216.90, totalling \$ 787.76 . Current membership is 38 members financial for 1977. (Details supplied by the Treasurer, Mr Condron).

General Business: Mr McMahon has indicated that he wishes to step down from the position of Editor, and the Council expressed concern regarding the appointment of an Editor for future issues of the Journal. In the interim this duty will be performed by the council and other helpers. The possibility of restructuring format of The Victorian Entomologist for next year was also discussed at some length. It was thought that publications in Newsletter form might help stimulate the flow of material, although postal costs would be considerable.

Further thought was given to preparations for the Jubilee Dinner. A substantial number of members have indicated that they will attend. The proposed Jubilee Exhibition was also discussed. The Council agreed that this function would be best held on the 16th and 17th of September. The possibility of obtaining the Herbarium as a venue was also considered. Among the details of preparation for this function will be the invitation of various institutions to contribute a display, and soliciting publicity in a wide spectrum of the media.

ENTRECS: Mr N. Quick reported on the progress of the data-storage scheme.

A trial run of some 500 records was now ready for key-punching to establish likely costs. These records include most of the data received to date on the satyrid butterfly Oreixenica lathoniella herceus. It was agreed that money would be made available from the Society's ENTRECS fund to meet the cost of this stage of the scheme.

Jubilee Dinner: Members are reminded that the Society's Jubilee Dinner will be held in the Science Club Dining Room, Clunies-Ross House, 191 Royal Pde., Parkville, at 7.30 p.m. on Friday, April 22. All members and their friends wishing to attend this important function must contact the Secretary or a Council Member as soon as possible. The cost of the Dinner will be \$8.00 per head, and includes both food and wines. Payment may be made at the door.

Treasurer's Report.Statement of Receipts and Expenditure for the Year Ended December 31, 1976.

Credit balance brought fwd. 303.34

Receipts:

Bank interest	9.11
Subscriptions 1976	301.00
Entrecs Donations	350.00
Ex-subs Journal Sales	7.20
Advertising Fees Received	21.50
Publns. Fund, Donatns. & Tr.	216.90
Donations, (Misc. sales)	16.64

Expenditure:

Journal Production	193.48
Hire Projector, Cafe-Bar	6.30
Postage, freights	49.11
Entrecs expenses	178.04
Transfer to Publns. Fund	100.00
Credit bal.- Cheque a/c	481.86
Credit bal. - Publns. Fund	216.90

1225.69

1225.69

Duly audited and signed by K.J. Ross, Chartered Accountant. March 10, 1977.

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Report on the ENTRECS Programme.

Members and others are reminded that data is still urgently required on distribution of Oreixenica lathoniella herceus, the common Silver Xenica. The provisional distribution map, reproduced in the "Victorian Entomologist" for October last, summarised and considerably extended the known limits of distribution of the butterfly, and has now been widely circulated.

It was, however only a test -- quite a successful one perhaps, but nevertheless known to be anything but complete, even within the more 'normal' collecting areas. Using this map as a guide, it should be possible to fill in many of the gaps. Unfortunately this reminder is a little late, in that it will not appear until well after the main flying period of the butterfly at any altitude. The co-operation of members in making the first map possible was greatly appreciated, and it is a pleasure to be able to pass on congratulations expressed by Dr I.F.B. Common in a recent personal communication.

There are still however a number of fairly comprehensive and valuable collections from which no information whatever was obtained, and data from these could have contributed greatly to that first map. It is not too late. Indeed, it will never be too late, for the programme will continue to provide for more and more diversified information as the years go by.

Response in relation to the Orthoptera and Odonata has been most disappointing. The incomplete nature, and general lack of care in some cases when listing species, incorrect genera, and referral to named points which do not appear on the 1:250000 maps, are some items which have caused a little concern, and a great deal of wasted time. It is a simple matter to run through a modest collection, and should not occupy endless hours when done by the actual collector. Nor does it necessitate the disclosure of the precise whereabouts of any jealously guarded locality. The most frequently-used grid square (10' x 10') contains up to 270 km².

The data provided by one of our student members, Andrew Kinsella, has been exemplary, and a pleasure to process. Andrew has now extracted data from his entire collection, and has added up-to-date field records. In no instance was an error of any consequence detected.

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Layout of the "Individual Record Card" (which is now not a card but a data sheet) has been completed. Some re-organisation of data was necessary in order to make data compatible with that suggested by ABRISIC for data banks. This proved to be a relatively simple task, without sacrifice of any significant items, and without incurring any substantial additional expense. Ironically, it is now ABRISIC who appear to be short of funds.

There is no shortage of sheets, which can be over-printed ready for use in major applications to save time, so PLEASE get down to running through collections over the winter months.

W.N.B. Quick.

-ooOoo-

A New Locality for the Butterfly Theclinessthes onycha (Lycaenidae).

By R.C. Manskie ^e

On February 26, 1977 at Wartook in the Grampians, Victoria, three small lycaenid larvae, 4-6mm in length, were found within 6 cm of each other, feeding on the small green leaves of Golden Wattle (Acacia pycnantha). The ant which was attending these larvae was the same (?) Iridomyrmex sp. attending Jalmenus icilius larvae in this area.

The larvae were taken home and transferred to a cultivated Golden Wattle, and immediately commenced feeding. The larvae were identified by Andrew Atkins as those of Theclinessthes onycha. The metamorphosis of the young larvae, through the pupal stage to emergence of the adult insect was rapid. The adults, two males and one female, emerged between March 20 and 23, 1977. All stages have been photographed.

^e 8 Smith Road, Mulgrave. V.

Editor's Note: It is important to identify this butterfly as the Acacia-feeding Theclinessthes. Current taxonomic revision may involve application of this name to another species. The very similar Theclinessthes albocincta (Waterhouse), larvae of which are restricted to Adriana spp. (Euphorbiaceae), is also now known to occur in Victoria.

A Hesperilla idothea puzzle.

By W.N.B. Quick *

In days gone by, when I used to collect with 'Ras Wilson, Bill Mules, and younger enthusiasts who now form the bulk of our members, I learned to regard this butterfly as a montane forest species, and to look for it in much the same areas as one would expect to find, say, Tisiphone abeona. Larvae and pupae would be found only on Gahnia sieberana growing in very damp conditions, more often than not near the bottom of a gully in thick undergrowth.

Suddenly, some eight years ago, when I was involved in straightening out some problems at a Nunawading plant nursery, numbers of the butterfly started appearing in the environs, some even entering the glasshouses. These almost certainly had bred on Gahnia sieberana, which is still I believe present in the vicinity of Blackburn Lake, no great distance from the nursery. But I have no recollection of any specimens having been recorded at any distance from the ranges until that time. This may of course reflect upon our collecting methods -- I had no idea Ogyris abrota existed in the area either !

More recently though, the butterfly has been recorded at Blackburn, and then at Glen Waverley. It is inconceivable that the latter insects could have come from the Blackburn Lake area. One perhaps, but not a more or less continuous succession. And to my knowledge Gahnia sieberana has been absent from the area (until cultivated) for at least fifteen years, if it did ever occur in the gullies of the Wheelers Hill area.

Certainly, I had reared a number on the plant I had brought into the garden, collecting the pupae before they emerged. It was possible that I had missed collecting one or two, and that a colony had established unnoticed on that one plant, but this seemed unlikely. To be quite sure, and in the process of 'clearing' the garden for some work on H. donnyssa, that Gahnia was torched -- burned to the ground to produce new shoots. The G. radula was stripped. No Hesperilla could have existed in the garden unknown to me. And yet they were back this spring, with a second flight towards autumn, males outnumbering the females as would be expected near a hilltop, but the females apparently not the least interested it seems in ovipositing on the garden Gahnias, (now two).

While working at that nursery back in 1969, I was puzzled by the appearance of chewed leaves on a large plant of Pampas Grass, Cortaderia selloana, which had all the hallmarks of leaves eaten by a Hesperilla larva, although I was never able to find a shelter. I did not give the matter much more thought until the butterfly started to appear in Glen Waverley, where there would now be many hundreds of these plants, some, certainly, in situations which might be favoured by the skipper. If the butterfly has in fact been able to switch from one of the Cyperaceae to a superficially very similar graminaceous plant, it would certainly account for its continuing appearance here. It would I think also be the first time such a switch had been observed.

I would very much like to have any observations other members may have made, any impressions they may retain from say twenty years ago regarding the natural distribution of the insect at that time, if any know of other cultivated Gahnia sieberana (or natural occurrences) east of Springvale Rd., and more particularly, if anyone can find larvae or pupae of this species actually on a Cortaderia.

A Weekend in the Alpine Country --- March 5-6, 1977.

By W.N.B. Quick

Heading off soon after first light in rather uncertain weather, and to the accompaniment of one of those superbly non-committal autumn weather forecasts, the possibility of a productive weekend's collecting in the high country seemed anything but assured. If overcast, we would at least be able to 'put up' a few Oreixenica paludosa (O. latialis) required for a seasonal-variation series; or even if wet, perhaps find the little alpine skipper Anisynta dominula drachmophora resting in a torpid state on flowers of Helichrysum and Craspedia. If fine, there might be some real hope of seeing just where the butterfly oviposits, and of identifying its host plant.

Even before reaching Broadford, it became apparent that we were almost encircled by an eerie ring of heavy low cloud, into or under which we would have to proceed before we could hope to see cloud formations to the east. As it happened, the first impression of weather in that direction was of much more scattered cloud, but with a west-to-east rather than the forecast north-east to south-west movement. We would be moving with the weather; but decided to gamble on an improvement as the day progressed. One brief stop was made at Myrtleford to purchase supplies and refuel before pressing on through Harrietville and up the slopes of Mt St Bernard. The weather was drizzly but improving, and every so often wandering specimens of the little silver xenica (Oreixenica lathoniella herceus) would be seen flying weakly across the road. At 1000m Heteronympha solandri had begun to appear, and a few minutes were spent in an open gully collecting voucher specimens of these two butterflies.

The O. lathoniella, mainly males, were in very fresh condition, indicating that the species was just appearing on the wing, an interesting contrast to the almost spent condition of the males we were to encounter at higher altitudes. As we learned later, Andrew Atkins who spent the same day collecting near Lorne, found that this species was not yet flying at sea-level localities. This unexpected response to seasonal change with an increase in altitude is an interesting phenomenon apparently not previously observed, yet one which may be quite significant in the study of the evolution and speciation of this group of butterflies. Along with the specimens collected, a single female of O. kershawi was taken.

At 1350m, low cloud suddenly reduced visibility to little more than a couple of car lengths for the more spectacular part of the climb, and the glare, together with the concentration required, was making even this short section very tiring. Blowhard's friendly wind however soon dispelled the cloud cover, and by the time the summit of Hotham was reached we were in warm but patchy sun. Surprisingly, there were few insects to be seen. And of the myriad immortelles, billy-buttons, snow-daisies and other alpine flowers which normally bedeck the herbfield providing colour and nectar for the entomological festivities, there was no sign. A few kilometers past the Lothian Chalet site, half an hour spent collecting near some flowering Rubus parvifolius and a small patch of Helichrysum produced only Zizina otis labradus, a single late Neolucia agricola, and several additional Oreixenica lathoniella. The lack of insect life and alpine flora was as disappointing as it was surprising, but to give credit where it is due, the mountain has been dramatically 'cleaned up' --- no signs of discarded cans or old plastic

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or building materials adorned the area -- and the mountain is still relatively free of the nightmarish maze of cables, bull-wheels and pylons which have utterly destroyed the former enchantment of Mt Buller.

A further stop near Dinner Plain disclosed a few more O. lathoniella and a couple of late O. correae which had taken refuge in a small Carex swamp. Little indeed to brighten the prospects. Here we encountered the agents responsible in part for the paucity of ground flora -- large numbers of grazing herefords still roaming the area, a legacy of a succession of weak governments and defiant cattle-men. One wonders if destruction of a few would disclose ownership (they appear unbranded), or if those responsible would still be so adamant that the animals, some of them truly magnificent beasts, are in reality 'not worth feeding', even at the public expense. Certainly many were confined to the controversial leases by excellent fencing, but just as many, presumably belonging to the more opportunist but less responsible interests, were turned loose on the ungrazed areas outside the fences. It was noticed too that snow-gums were still being felled to provide low-cost fencing, not just as posts, which might be excused, but to form massive barricades of trunks and branches.

Moving on again to a grassy gully near Flourbag, which a year or so before had provided some interesting material, there was more on the move, and the sun had reappeared. Heteronympha penelope was not infrequent, quite a number of O. lathoniella were active in the increasing warmth, and a single specimen of Anisynta dominula drachmophora was taken. Further down the same gully, a couple of late Heteronympha cordace appeared, together with one or two Geitoneura klugii, the almost ubiquitous Zizina otis labradus, and one or two more A. dominula. Fully aware of the alarming swiftness with which impenetrable fogs can descend in these alpine areas, the portable transceivers were being given their first use. The antennae proved unwieldy and rather vulnerable in the undergrowth, but it was found that over modest distances adequate performance was obtained with these only partly extended.

Over the remaining section of the alpine road to Cobungra we were quite unable to identify the locality in which Oreixenica paludosa had been taken some years before. Indeed there seemed to be few sections of sheltered herfield where the butterfly might be expected to exist, and as the afternoon was nearing an end the search was abandoned for the day, as a campsite had yet to be selected and the tents erected. The air was now quite warm, and the sun shining. As we were passing Flourbag on our return towards Hotham, its rays highlighted a patch of Senecio in full flower -- cattle avoid eating this plant. This could not be passed by without at least a brief investigation. Here, to our astonishment, we found A. dominula in dozens -- every tuft of bloom was host to one, two, or sometimes several of the little skippers. In other places O. lathoniella was even more abundant. A number of specimens were obtained, together with a single Oreisplanus munionga, which we had expected to see on our previous stop nearby. At this altitude, about 1500m, O. lathoniella had obviously been flying for some weeks, the worn males being considerably outnumbered by freshly-emerged females. This was the case too with A. dominula, and an opportunity perhaps to locate the food-plant of this skipper. Tussock-grasses (Poa spp.) of every description abound in these areas, at least four, and possibly five distinct taxa being lumped into the Poa australis complex until recently. Whether due to the attraction of the Senecio, or to other factors, the skipper was largely confined to this restricted area in which a very robust tussock was locally abundant. The plant, a stout tussock some 50 cm in height with culms to 70 or 80 cm, and narrow, sharply-folded and very rigid or almost horny, yet slightly pubescent blades, is very localised, but was subsequently identified in each

area the butterfly had been taken. In spite of a considerable time spent observing the insects, and somewhat less time actually searching the tussocks, no evidence was obtained to indicate that this was the host-plant. Quite possibly the eggs are not laid directly on the host, but on nearby litter. As the day drew to a close, the skippers appeared to be seeking shelter under cover of the snow-gums, and the little silver xenicas went about the business of forming their overnight clusters. Following this example we packed up and moved back about five kilometers towards Mt Hotham, where an abandoned loop of the old road, now grassed over, provided an excellent campsite, and the tents were set up in the remaining light.

In some spare time after a long-overdue meal, and before setting up the U.V. 'moth' lights, the transceivers were tested for ultimate useful range. While one remained at the camp, the second unit was tried at 1km intervals along the road to the east. Excellent reception was maintained at the camp from the mobile unit, but transmission from the base camp was apparently weak, and later found to be due to a combination of poor battery condition in that unit, and a receiving-circuit deficiency in the mobile unit. Under average to good field conditions, five kilometers would appear to be well within satisfactory range, and their usefulness undeniable, especially on change of plans or perhaps in emergencies. The gas and U.V. lamps set up for moths provided little material in competition with the bright light of a full moon. That aggravating headache associated with exertion at high altitudes before acclimatisation had now appeared, and 'lights out' was sounded early.

After a sound night's sleep in the fresh mountain air, an hour longer because of the overnight termination of summer time, an early start enabled us to have a look at the immediate vicinity in daylight, but there was little of interest. Occasional O. lathoniella were already fluttering over the grass, crane-flies dipping their toes in the last of the morning dew, and the grotesque alpine grasshoppers, with their ever-ardent spouses, seeking shelter amongst the tussocks. Anxious to renew the search for the host-plant and early stages of A. dominula, we broke camp after a light breakfast, and returned to the locality near Flourbag. The skippers were already busy at the Senecio blooms, and O. lathoniella dancing everywhere over the soft turf. A few alpine agaristids were about, but one dark insect was quite obviously different, and when netted proved to be a remarkable melanic aberration of O. lathoniella. Such melanisms, apart from their 'novelty' appeal, provide valuable information on the criteria to be used in visual separation of species within this close-knit group of butterflies. A second, somewhat less affected specimen was taken by David Crosby shortly afterwards.

As we worked radially away from this central area, occasional specimens of Oreisplanus munionga were encountered. A call from David, who had been collecting some distance to the north, was to the effect that he had come across a patch of Carex appressa, around which, even at this late date, the skippers were flying in some numbers. This they were indeed. A small spring in a picturesque little 'hanging gully' supported a lush growth of Carex, almost untouched by the cattle, and some dwarfed but ancient Woolly Titree, still with a little flower remaining, on which David collected some interesting buprestids (Stigmodera spp.). Within the Carex thickets, long-dead branches of the Leptospermum were covered with lichens. Still more skippers were quietly fluttering amongst these branches as they sought mates, their intent being made quite obvious by the numbers of pairing insects seen settled on foliage nearby.

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Resting on dead twigs amongst the lichens, still others were noticed, the camouflage provided by the almost geometrically-cryptic pattern of their undersides was remarkable, and the insects almost invisible. Larval and pupal shelters, now empty, were in evidence all over the host plants.

Having been quite unsuccessful in re-locating O. paludosa, or the spot in which it had been taken in previous years, we returned to our former campsite towards midday in order to have another look at the entire section, on the way back collecting a few more late O. correae in a grassy gully, and a single very late Neolucia hobartensis in a small Epacris swamp in which its host, E. paludosa, was growing. Nearing the end of the second complete 'run', and on the point of abandoning the search before a heavy bank of black clouds precipitated its contents onto the mountain, the old site was recognised at an altitude of just over 1500m. That it was recognised at all was sheer chance. Gone was most of the Epacris fringing the sphagnum and sparkling little tarn. Gone too the sphagnum itself, and most of the smaller shrub cover -- the Kunzeas, Baeckea, Bossiaea, the dwarf Casuarina, and most of the Epacris. Even the Poa turf was in a poor state, and the sparkling tarn had degenerated into little more than a narrow drain. The area rejoices in the name Horse Hair Plain, but from the evidence lying on the ground, these animals were not the major culprits in this destruction. The deterioration of this formerly delightful herbfield-sphagnum association was a heartbreak, and one cannot help wondering how widespread this desecration has extended. The butterfly fauna seen here -- one specimen, at last, of O. paludosa, and several A. dominula -- was a dismal reflection of former abundance. To be quite fair, the single specimen of O. paludosa was a very freshly-emerged male, and we may in fact have been a trifle early for the main flying period. But the days of Horse Hair Plain as a locality as a habitat of this little butterfly appear to be very finitely numbered.

The black clouds we had been watching brought to an abrupt halt any thoughts of further collecting, and once more the car was turned towards the summit of Hotham and home. Even before the summit was reached, a shattering hailstorm had us wondering if there would be any paint left on the vehicle, but the damage was minimal and confined to one wiper arm -- a parting reminder of the fickleness of alpine weather. On the descent into Harrietville, a stop was made for a very late lunch, coffee, and a hurried look around an area in which Anisynta monticolae had once been taken, in the hope that one or two late specimens might be about, but none were sighted.

With thoughts for next year's collecting already developing, and perhaps with Pseudodipsas cuprea as a goal, an eye was kept open on the return trip for likely-looking hill-topping sites. A whole series of more or less conical, stony hills between Oxley and Whorouly South will certainly be on the visiting list, and not solely in the hope of finding Pseudodipsas. Slightly closer to home, Glenrowan offers an excellent prospect almost right in the township. To the south of Benalla, towards Mansfield, there is a tract of Eucalypt forest which should be put on the mid-summer list, while further to the south Mount Samaria should be included. About 22 km to the south-east of Benalla a smaller but most promising hill (? Mt Pleasant) was noticed, but means of access to this is not known. Closest to Melbourne are two low hills near Taggerty, one beside the Little River about $\frac{1}{2}$ -km upstream of the township, the second a well-defined offshoot or spur to the north-east of the Cathedral Range. Any collector visiting these localities might do well to collect carefully any ants in the area, particularly those in nests in the vicinity of eucalypts or Acacias.



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THE
VICTORIAN ENTOMOLOGIST



Journal of
The ENTOMOLOGICAL
SOCIETY of VICTORIA

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Membership

Any person with an interest in Entomology shall be eligible for Ordinary Membership. Members of the Society include professional, amateur and student entomologists, all of whom receive the Society's journal, the "Victorian Entomologist". The Society encourages corporate membership of schools and Study Groups, of Libraries, and of University and Departmental staff.

Objectives

The aims of the Society are:

- (a) to stimulate the scientific study and discussion of all aspects of entomology,
- (b) to gather, disseminate and record knowledge of all Australian insect species,
- (c) to compile a comprehensive list of all identifiable Victorian insect species, and
- (d) to bring together in a congenial but scientific atmosphere all persons interested in entomology.

Meetings.

The Society's meetings are held at Clunies-Ross House, National Science Centre, 191 Royal Parade, Parkville, V. at 8 p.m. sharp on the second-last Friday of even months, with the possible exception of the December meeting, which may be held one week earlier. Lectures by guest speakers or members are a feature of many meetings, at which there is also ample opportunity for informal discussion between members with like interests.

Annual Subscriptions, 1977.

Ordinary Member	5.00 (Aust.)	Approx. 6.50 (U.S.)
Student Member (Under 18)	2.00 "	" 2.60 "
Journal posted surface mail.		
Associate Member	2.00 (Aust.)	

No additional Joining Fee is payable. Associate members, resident at the same address as, and being immediate relatives of an Ordinary Member, do not automatically receive a copy of the Society's publications, but in all other respects rank as Ordinary Members.

Contributions to the "Victorian Entomologist"

The Society welcomes contribution of articles, papers or notes pertaining to any aspect of entomology for publication within the Journal. Contributions are not restricted to Members, but should be responsible and original, preferably typed using double spacing. Statements and opinions expressed are the responsibility of the respective authors, and do not necessarily reflect the policies of the Society.

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R. Manskie, W.N.B. Quick, O. Rogge.

Diary of Coming Events

Friday, June 17, 1977. Annual General Meeting. Amendment to Constitution Proposed.
Election of Office-bearers. Presidential Address.
Meeting Commences 8 p.m. sharp. (All office-bearers retire, but are eligible for re-election).

Friday, August 26, 1977. General Meeting (amended date). Guest speaker. Possible visitors from Australian Entomological Society.

October Excursion: Details to be decided.

Friday, October 21, 1977. General Meeting. Discussion-forum. Various topics.

November Excursion: Mt Samaria. Details to be decided.

Friday, November 18, 1977. General Meeting. Film Night. (A new, extra meeting).

Friday, December 16, 1977. Members' Night.

Friday, March 24, 1978. Members Night. (A new, extra meeting).

Coffee will be available at meetings.

Minutes of the
Council Meeting held at Clunies-Ross House, May 20, 1977.

Mr J.C. Le Souëf, retiring President, welcomed Councillors to the meeting. Apologies were received from Mr D.F. Crosby, at present overseas. Minutes of the last Council meeting were read, and moved to acceptance by Dr New and seconded by Mr Quick.

Matters Arising from Minutes

Mr Le Souëf suggested that the proposed Jubilee Exhibition be held over until 1978, the Herbarium being unavailable on the proposed dates. In view of the amount of preparation necessary for such an event, the Council was in agreement, and the proposed date is now 5-7 October, 1978.

It was agreed that the "Victorian Entomologist" would continue in its present format under the 'band-aid' editorship of Mr Quick with other members giving assistance in preparation of the magazine, at least until a new Editor is appointed and familiarised with the process.

Correspondence was received from: Australia Post, requesting assistance in a proposed feature display of Norfolk Island stamps figuring insects; from Mr D.F. Crosby requesting that he be replaced as representative to the Australian Entomological Society; from the Sciences Club, and from the Ent. Soc. Aust. (NSW). Mr Quick moved that the correspondence be received. Seconded by Mr R. Manskie.

The Treasurer, Mr R. Condon, advised that the expenses incurred in relation to the Jubilee Dinner (\$416) fell somewhat short of the takings (\$370) due to the failure of several members to attend. It was felt that these members might be asked to contribute. He also advised that advertisers had not yet been invoiced for 1976 advertising (five issues), or for the current year. He reported a credit balance of \$982.86, with \$216 in the publications fund. Membership stands at 47, somewhat less than at the same period last year, due in part to the omission of red 'reminder' stickers from the April issue, and in part to the absence of facilities for payment at the last two meetings.

General Business.

Syllabus - General meeting dates were drawn up for the current year and formats for each suggested. Dates and format appear in the front of this issue. Mr A. Atkins suggested that the August meeting be held in the same week as the Annual General Meeting of the Australian Entomological Society to enable visiting entomologists to attend. Dr T.R. New suggested that a coffee machine be made available at each meeting, with a 20c 'voluntary' levy at the door. Among the subjects suggested for future meetings were Guest Speakers (a minimum of 2 - Dr New.), film nights, members' nights, and forums devoted to techniques of collecting, preserving and rearing of insects. Mrs Le Souëf passed on a suggestion that the Society hold a buffet-type dinner/ social evening, at an outside venue, for all members and friends as a fund-raising function.

Council discussed the formation, by the Society, of a deputation to approach the Ministry of Conservation seeking the establishment of an advisory body, composed of both amateur and professional entomologists, to assist in any future conservation issues. It was agreed that such issues in the past have included study of most aspects of vertebrate fauna, and on the flora, but little on the invertebrate fauna.

Mr N. Quick proposed a vote of thanks to Mr and Mrs Le Souëf, and other councillors, for their part in making the Jubilee Dinner the success it undoubtedly was. It appears likely that photographs taken at the dinner will be available at a

reasonable price.

Mr Le Souëf advised Council of the interest shown by Latrobe Library in documents and old letters relating to entomology and early entomologists. He indicated that the Library would welcome any such material of an historical nature for placing on their files.

Mr Ross Field detailed the programme for the week of the Annual General Meeting of the Australian Entomological Society, and advised Council that application forms for attendance at symposia and functions, registration, and submission of scientific papers are now available from Dr New, Department of Zoology, Latrobe University, Bundoora, 3083. Mr Le Souëf suggested that many members of our Society would be interested in attending the A.E.S. Excursion Day at Black Spur.

Dr New suggested that it was desirable to clarify the definition of 'Student' members within the Constitution. Finally, the President closed the meeting, thanking the Council for its assistance during his term of office.

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Alteration to Constitution.

NOTICE is hereby given that it is the intention of the Council to put to Members at the Annual General Meeting, Friday June 17, 1977, that the definition of a 'Student Member', at present defined thus:

" 3(b) STUDENT MEMBERS are persons under the age of 18 years, and who are bona fide full-time students of a college or University, paying an annual subscription to the Society. "

be amended to read "under the age of 19 years, who are bona fide .. &c" or as shall be determined by that meeting. The feeling of the Council is that there appears to be a one-year overlap between Student Membership and Ordinary Membership, and an ambiguity in relation to eligibility subsequent to their turning 19.

IMPORTANT NOTICE.

As will be apparent from the Minutes of the May 20 Council Meeting, the Jubilee Exhibition, which was tentatively to have been held on September 16-17 this year, has been put back some twelve months, largely due to the unavailability of the Herbarium over that period. The tentative dates for this function are now October 5-7, 1978. This will give a more suitable period over which to carefully plan exhibits, which must be the backbone of a first-rate display. Make good use of this time.

AUGUST MEETING.

Please note that the August General Meeting departs from the normal scheduled date to enable visiting entomologists from the Australian Entomological Society attend our function. The date for this meeting is Friday, August 26, 1977.

Editorial:Our Jubilee Disaster.

Since October, 1971, when the "Victorian Entomologist" first appeared, succeeding the informal, irregular but nevertheless thoroughly enjoyable "Wings and Stings", the Society has been striving to maintain or improve the standard of its Journal. There had, particularly in the last year, been difficulties. This was undeniably reflected in the poor presentation of a number of issues, and this, in turn, has without doubt been responsible for a number of authors being reluctant to commit their labours to such irresponsible treatment. At no stage, until then, had it ever been felt that prestige, such as we had managed to generate, was sacrificed by a well-presented if modest, perhaps even humble, duplicated production designed to keep costs to a minimum. The occasional disappointment must always be expected, but a disaster of the magnitude of the April issue simply cannot be accepted.

While it is very easy to be critical of others, and for this reason alone all details of such a failure shall not be discussed, the "method" of production involving the snipping-up of author's copy for photo-scanning, and attempting duplication on photo-copying paper, was never sanctioned by the Council. Members, for their subscriptions, and advertisers, for their fees, are entitled to expect something better. It is especially unfortunate that this should have happened in our Jubilee Year, and coincided so precisely with the Society's Jubilee Dinner. Considerable time and effort had been put into boosting content of the Journal for this occasion, to little avail.

Under the circumstances, the Society, at the suggestion of several members of the Council, and at the discretion of the Acting Editor, is re-printing Vol. 7 No. 2 in entirety, and this should be ready for mailing with this (June) issue. The Society earnestly requests that members and others will accept this as the best and most fitting apology available. The ultimate guarantee of avoidance of some sort of repetition can only come when the Society finds or is granted some reasonably central, secure location in which to locate its own duplication equipment and supplies, and when members, either by their own endeavour, or by soliciting the indulgence of others, stir themselves to contribute to what can be a thoroughly worthwhile publication.

Let none believe that the position of Editor, or one of his/her assigned assistants, is one of drudgery. On the contrary, it is, although a responsible position, and one on which the image of the Society hangs, an enlightening one, even an outlet for pent-up feelings in the form of a well-considered editorial. One can talk to, pacify, interrogate, inspire, reprimand, constructively criticise, plead or sympathise with, and now, hopefully, reassure members -- reassure them that the Council is very, very concerned regarding this unfortunate incident. A position on an Editorial Committee should be an enjoyable experience, just as long as it is remembered that 'many hands make light work'.

The Jubilee Dinner

In spite of the petrol shortage, fifty-two celebrants -- past and present members, their wives, friends and guests, attended this grand occasion. Amongst and between the neat table settings 'grew' Banksia and Lantana on which various 'entomologica' were set out. Only the more observant would have been aware that Mrs Le Souëf had been busy earlier in the evening, creating this very artistic and imaginative display, for it was noticed that labels were still attached to the many specimens. Some of the larger butterfly specimens appeared to have migrated from their Red Hill abode.

It was most enjoyable to see, in the relaxed atmosphere of the Sciences Club Dining Room, so many of the past members of the Society and old acquaintances, sherry in hand, reliving the exploits of some past collecting trip. Some of our guests had made long journeys to attend the function; Keith Hateley had forsaken Romeo and the sand-ridges of the Little Desert, and with his son-in-law had driven from Dimboola, Mr and Mrs Tom Greaves had motored from Canberra, while Dr Elizabeth (Pat) Marks had flown in from Brisbane, via Sydney, to represent the Queensland and Australian Entomological Societies.

The President, Mr J.C. Le Souëf, officially welcomed the guests, members, and their friends to the Jubilee Dinner, then amid the splendour of Morpho wings, and under the watchful, almost envious eyes of cicadas, all were seated to partake of the excellent roast beef, later followed by chocolate mousse.

Seated at the main table were Sir Robert and Lady Blackwood, Dr Pat Marks, Mr and Mrs Le Souëf, Mr and Mrs Tom Greaves, and Clarrie Borch, while resplendent before them was the Society's 50-year 'birthday' cake, another of Mary Le Souëf's creations, bedecked with Coleoptera and Lepidoptera -- and 50 candles. The President called upon the foundation members, Sir Robert, Tom Greaves and Clarrie Borch, to extinguish the 50 symbolic flames burning strongly (and beneath a sprinkler-system sensor), after which Pat Marks was invited to commence the dissection. And was it imagination, or did the waiters steer shy of the hexapods flanking the wine carafes ?

When the time came for speeches, the President outlined the formal (and some informal) activities of the Society from 1941 to the present day, through the era of Messrs Clark, Langley, Wyatt (!), Mules and Wilson to Llew Gooding, Alec Burns, Norman Tindale and the younger collectors, and finally the present Entrecs scheme. He then introduced the first guest speaker, Sir Robert Blackwood, who recalled the earliest days of the Society following the inaugural meeting at 'Ras Wilson's home in 1927 -- the era of Spry, Fischer, Dean and Oke. Following Sir Robert, Clarrie Borch recounted some of the more memorable collecting expeditions undertaken by the early 'bughunters', highlighting these with his own experiences collecting in Victoria and Queensland, and comment on the travelling collection of F.P. Dodd of Kuranda. This was followed by Tom Greaves' recollections of his early collecting days in England, his subsequent emigration to Australia in 1924, and his eventual transfer to Canberra in 1930 to work with Dr Tillyard. He then outlined the three main eras in the history of Australian entomology -- the 'explorers', the 'amateurs', and the present 'professional' era, emphasising the contributions made by amateur groups such as the Entomological Society of Victoria, most often without financial support.

Finally Dr Pat Marks wished the Society every success in the future, and verbally conveyed congratulations to the Society on behalf of the Entomological

Society of Queensland and the Australian Entomological Society. Congratulatory letters were received from the President of each, from Dr D.F. Waterhouse on behalf of C.S.I.R.O. Division of Entomology, and from Dr N.B. Tindale.

On behalf of the Society, Dr Tim New moved a vote of thanks to the speakers, and to our President for his time and effort in the preparation and organisation of the Jubilee Dinner. The President then brought the evening to a close, thanking all those who had attended.

Entomology on the Move.

By the time this Journal is received, the Entomology Department of the National Museum will be fully functional in its new abode at 71 Victoria Crescent, Abbotsford. The first cabinets, containing some 680 drawers, were moved out on Monday, May 9th. in a well-organised and trouble-free operation. Tuesday saw the balance of the main collection installed, and by Thursday afternoon the operation was completed.

There remains, of course, a great deal of re-organising to be done in regard to re-location of apparatus and equipment, and placement of the Howitt and other collections involving a great diversity of cabinet sizes. The unfinished state of benches, cupboards and shelves led to a large number of items being diverted temporarily to 'Room 7', with the inevitable congestion to which such places are prone. Steel cabinets, in which the alcohol-preserved collections are to be housed, did not materialise, and this did little to improve the situation of the moment.

Damage in transit, regrettable as it always is, was astonishingly light when one considers the age and fragile, probably de-vitrified nature of the glass of these old cabinets. One tray of alcohol-jars also had a rather unnerving experience, but appears to have escaped damage.

The move presented an excellent opportunity to really appreciate the volume of material housed within the Department, and the extent to which the staff have managed to amalgamate incoming material and bequests. Just as apparent however was the need for additional cabinets, (which are understood to have been ordered), if this wealth of material is to be freed of the congestion which prohibits systematic arrangement in conjunction with proper display.

The spontaneous interest generated by an insect display or collection was very evident amongst the removalists, who frequently commented on, or enquired about many of the specimens, and doubtless would have continued at length if they had not been so hard-pressed during the rather feverish unloading processes. The staff doubtless will be in a state of shock for some time, and should be allowed to recuperate for an appropriate period, during which they will come to appreciate the luxury of proper offices. Eventually, visitors will discover that the improved parking facilities, at the rear of the building, are a pleasant change, too. The address again, 71 Victoria Crescent, Abbotsford, telephone 419-5200.

New Guinea Butterflies - Part ILae.By R.H. Fisher ^e

It was my privilege to visit Papua-New Guinea on several occasions in the years between 1968 and 1973. It was also my good fortune that John Womersley, a botanist friend of long standing, was a resident of Lae and had experienced the post-war reconstruction and growth of this city. John's interest in lepidoptera dates back to the days when we cycled incredible distances in South Australia, with our butterfly nets made from a loop of cane, a brass Y-piece and a broom-handle tied to the frames of our bikes. The Y-pieces used to cost three-and-sixpence and were made by the local plumber. One of our weekend trips might involve up to 200 km, and if we came back with five or six species we thought we had done pretty well. During my visits to New Guinea John's knowledge of the island's geography, its natural history and its people contributed greatly to my collecting opportunities, and he understood the feelings of a lepidopterist from arid South Australia when confronted with the great diversity and beauty of New Guinea butterflies.

Lae is situated on the coast at the head of the Huon Gulf, near the mouth of the Markham River. An impressive backdrop is created by the Saruwaged Range, rising to more than 4000 m in the north. Much of the immense rainfall for which Lae is noted (4500 mm annually) occurs at night and passes through the coarse gravelly soil, so that by ten o'clock next morning the ground may in parts be dry and even dusty. But, on rare occasions, the rain may be so heavy that inundation occurs and damage to roads and bridges may result. The fast-flowing, boulder-strewn rivers that abound in much of New Guinea give some indication of the magnitude of precipitation in some parts of this country. In Lae itself the mornings are often cloudy, and few butterflies are to be seen until the sun appears later in the day. If transport is available, one tends to travel out about ten or fifteen kilometers to areas free of low cloud cover.

The coastal vegetation consists largely of quite dense tropical rain-forest, with tall trees and a rather open ground-storey. Areas cleared for roads or other purposes tend quickly to become overgrown with creeping vines and other secondary growth. It is the edge of the forest which is most productive from the lepidopterist's point of view; one of my favourite collecting areas near Lae was a track cut broadly through the rainforest and ending at the Butibum River. Here one could collect from forty to fifty species in an hour or two, provided the weather was fine, and provided one was there by the middle of the day. Earlier in the day and late in the afternoon the areas of shade were greater, and there was a significant decrease in the number of species flying.

Near the centre of Lae is its world-famous National Botanic Garden, planned and built by John as Chief Botanist. Here one could watch, but not collect, a diversity of species from all the families except the Megathymidae. If one tired of butterflies there were the orchid-houses, or the carefully-preserved stands of rainforest, immaculate lawns, a great variety of tropical plants, and even a waterfall. Or those less-enlightened entomologists whose interests lie elsewhere than in butterflies could watch their dragonflies, moths,

wasps, flies, beetles, cicadas or whatever. It seemed on every visit that the butterflies were different, yet always one saw the electric flash of Papilio ulysses, or the deep violet-blue of the oakblues, Narathura spp. Here, near the edges of the natural rainforest, I saw my first Taenaris, owl-like with the huge ocelli on its pale and seemingly dislocated wings. Like miniature versions of these were the delicate white lycaenids, Euppsychellus dionisius, flying so slowly that one could, with little trouble, pick them out of the air.

Here, too, I watched the fatal last flight of an orange moth. It set a course for the trunk of a large tree some twenty metres away, and flew in a straight line about two metres above the ground. I was close to the tree and saw it coming, but so too did a beautiful emerald-green lizard resting on the trunk of the tree. Instantly alert, it determined exactly the spot on which the moth would land and simply located its mouth there a few seconds before the moth arrived.

Near one of the entrances to the Gardens, past a row of stately palms, is a bed of Hibiscus whose flowers of many colours were a constant attraction to a variety of butterfly species, but particularly to those of the Papilionidae. In the late afternoon these usually high-flying species would descend to feed, and could be leisurely observed in their fluttering wings-erect attitude as they probed for nectar in the flowers.

In the streets and private gardens of Lae one would encounter the more common species such as Papilio aegaeus and Catopsilia pomona - both much larger than Australian specimens - and often the large skippers of the subfamily Pyrginae, resting typically with wings outspread on Crotons and other broad-leaved tropical plants. In one garden was a tall Cassia javanica which had been infested recently with larvae of C. pomona. Its branches still bore hundreds of empty pupal cases, and more could be seen on the leaves of some epiphytic orchids attached to the trunk.

There is a hill in Lae called Lunamans Hill. Prior to and during the second world war an ancient Ficus tree which grew at its summit was used as a landmark and was visible for a considerable distance up the Markham Valley. The tree is long since gone, and its place has been taken by a steel communications tower of the kind that raises its ugly eye-like dishes on high points these days throughout most countries - even New Guinea. I often walked to the top of the hill and collected a few satyrids from the grass along the way. One day, near the top, there was a small lycaenid flying in numbers around a flowering shrub. It had grey-brown wings, each with a cream spot. To this day I have not found a name for this species, nor can I guess at its genus. Here, too, I watched a Graphium sarpedon patrolling a territory at the edge of the road where the hillside fell away steeply below. It stayed beyond the reach of my net so, at the risk of falling a few hundred metres into the grounds of the Hotel Cecil, I lowered myself over the edge. I still couldn't catch it, but as it flew back and forth its territory became very well-defined, and it left no doubt in my mind, or for that matter, in the mind of any inquisitive insect, where its boundaries lay. The males of another well-known species, Hypolimnas misippus, also favoured this hilltop but preferred the level, open ground along the edges of the road.

One day two New Guinea friends, Michael and Yakas, took me out along the road to Wau to reach a logging track where the collecting promised to be

interesting. Coming from South Australia, I had an eye for mistletoe, the larval foodplant of many Ogyris spp. Hopeful always of finding a specimen or two of the rare and beautiful New Guinea species, I called a halt when I spotted some clumps of mistletoe soon after crossing the Markham bridge. Yakas, a born naturalist, volunteered to climb a tree, cut the mistletoe, and lower it by a rope so I could search for any signs of the early stages of Ogyris. This he did, but in the process he disturbed a nest of the yellow tree-ant and we spent the next half-hour brushing the yellow beasts out of his eyes, mouth and clothes. Their bite is not particularly painful, but their sheer numbers and their intense activity was, to say the least, disconcerting. One gets the impression that when their nest was first disturbed a cry went out and all the ants from all the nests nearby, and there were many, came racing over to see what kind of fools these people were. We got no Ogyris, but I found a Hypochrysops specimen at rest on a tree trunk, not brightly marked beneath, but intensely blue above.

Soon we reached the logging track, left the main road, and began an upward climb. Over the next few kilometers the track crossed a shallow creek several times. I had learned from experience that creek crossings such as these were excellent collecting places as many butterflies are attracted to the moist and open ground where the track enters the water. It pays to stop the vehicle before crossing and have a little poke around. At the first crossing there were probably a hundred lycaenids, resting on the moist sand or flying nearby. There was a common little Danis species, the male blue above, the female black and white, and both sexes showing beneath their wings those iridescent blue-green markings which are a feature of this genus. A group of them together on the sand, showing the clean white underside of their long forewings, resembled a cluster of tiny yachts. There were other lycaenids present, and several pierids, and I stayed a while collecting.

At the next crossing we were a little higher and the dense forest shaded the road. Here were a number of specimens of the blue diurnal uranid moth, Alcidis agathyrus. The orange ventral surface of the abdomen was apparent when we held the captured specimens. For reasons not clear, the butterfly Papilio laglazei is a mimic of this moth, and when at rest two orange streaks beneath its hindwings effectively cover the ventral surface of its abdomen. I did not at any stage collect the butterfly, but I believe I saw one flying at Madang. Here we had crossed the creek before stopping, and the wheels of the vehicle had squashed a number of lycaenids on the road. Some of those that escaped were immediately attracted to the squashed bodies, and rested by them, each with its haustellum extended into the fluid mess. The attraction was apparently quite strong, as those which were feeding thus could be picked off the road with one's fingers.

Time passes quickly for a lepidopterist in New Guinea. Soon it was mid-afternoon and sunny patches were becoming hard to find. I was reluctant to leave just yet although I had collected an impressive variety of species. I wandered into the forest and saw an occasional Papilio euchenor, a large and rather slow-flying black and yellow species looking a little like an overgrown P. demoleus. Then, by incredible good fortune, I found an Aristolochia vine and several big larvae of Ornithoptera priamus. The magnificent green males,

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and the black-and-white females of this birdwing are not hard to find near Lae, but I had not yet seen or photographed the early stages. The velvety black larvae with their red-tipped spines are a natural-history photographer's dream. As a bonus, Michael came to light with a very large larva of a sphingid moth, pink, and with the usual dangerous-looking spine at its posterior end. It was time to leave.

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News in Brief.

On the Cheap... Did you notice a red sticker on the cover of a recent issue ? It didn't fall there un-noticed. It was carefully and deliberately placed there as a gentle if not very subtle reminder that you have forgotten again to let us have your subs for 1977, and have (unless you have been kind enough to post them back to us) received the last three issues at no cost. Do please be prompt about it. We work to a pretty tight budget which has just suffered a bit of a setback, and unless subs are received within the next four weeks this will be the last journal you will receive.

Elections. In order to have matters a little better in hand for the Annual General Meeting, nomination slips are being enclosed with this issue. It is of course necessary for nominees to consent to nomination, and indicate this by signature of the nomination. This may be done at the actual meeting, but to avoid delays would be better carried out beforehand. Nominations may be seconded at the meeting. All office-bearers are eligible for re-election. The positions of Editor and Secretary are vacant, Mr A.F. Atkins having indicated that he is, regrettably, unable to continue in the latter capacity. Along with the nomination slip, a membership application form is also enclosed as an inducement to bring along one new member -- or his/her subs. Subscription rates, miraculously, remain unchanged, and will be found inside the front cover.

Jubilee Dinner Recorded. Not strictly true of course, for science still has a little to learn in this regard. However, the speeches made during the course of the evening have been recorded (two C-60 cassettes) and copies may be ordered from the present acting Editor. Much history of the Society, and a number of interesting notes and anecdotes are included. Cost will be approximately \$6.50 .

Interchanging Stencils. A great deal of uncertainty regarding the machine on which the Journal is to be duplicated has caused some considerable trouble in selection of appropriate stencils. The stencils used for this issue are adaptable to both Gestetner and more recent Roneo machines. These are Plastograph stencils, manufactured for Dataprint Business Equipment, 460 High Street, Prahran. Future Editors, please note !

Covers for Vol. 7, No. 1. Covers of the correct colour are available for this issue, and will be supplied free on request, but can not be posted separately. They will be included, as ordered, with the next issue.

Pseudodipsas cuprea in Victoria.By W.N.B. Quick^e

Pseudodipsas (Lepidoptera, Lycaenidae) is a genus of small butterflies, none of which could be described as common except perhaps in an extremely localised sense. Of the three species at present known to occur in Victoria, none of which is brightly coloured or conspicuous on the wing, the larvae of at least two are so intimately associated with ant colonies that they have become independent of normal vegetable foods, and feed almost entirely within the ant nests. Larvae of P. myrmecophila are at least partly mycetophagous, while C.G.L. Gooding is convinced that those of P. cuprea are carnivorous, eating pupae of the host ant after having been fed by the ants in the early instars. Pseudodipsas brisbanensis cyrilus, the 'Large Ant-blue' is an extremely rare Victorian insect, recorded from Cranbourne and Springvale many years ago, and possibly now extinct in those areas. Except that several pupae of it were once found in ant tunnels, little is known of their early stages. It is interesting to note that Waterhouse and Lyell separated cyrilus from what they considered the typical race because of its lack of the 'pronounced coppery suffusion' of the more northern insect.

Pseudodipsas cuprea, separated from P. brisbanensis by Sands in 1965, is a little more widespread, and although a rare insect, was possibly responsible for some 'brisbanensis' records prior to that year. Within Victoria, P. cuprea has been recorded from Launching Place, Yarra Junction, near Moe, and most recently on the Wellington River north of Heyfield by D.E.A. Morton. The majority of specimens have been taken by Gooding, formerly of Moe, but now living in Warragul. The first of these, two females, were taken in December 1917 while they were settled on a tree stump. The locality was burnt out the following day. A second area, located in December 1922, yielded only two further specimens, and was cleared and ploughed over the following year. In 1937 Gooding observed further specimens flying above a moribund 'peppermint' gum. The tree was felled, and the first known larvae found in separate sections of the ant colony in the dead limbs. These larvae were placed with 'Iridomyrmex' ants attending Hypochoeris delos larvae on an Acacia baileyana in his garden. They were presumably not retrieved as pupae, for he reared several specimens from pupae obtained from that tree in subsequent seasons.

Since moving to Warragul, he has succeeded in locating at least one additional colony, presumed to be within the same general area, but of which he is reluctant to disclose details, as he has for some time been in poor health, and unable to investigate the species more fully. He has indicated though that most of his more recent specimens have been netted relatively close to the ground, and not, as most specimens are, while 'hill-topping' or 'tree-topping'. From his earlier statement that one colony had been ploughed over, it is apparent that his experience with the species enables him to recognise breeding habitats directly, rather than having to commence his search on hilltops, and that these sites are on lower, more level areas. Other than stating that the species is restricted to 'typical peppermint-eucalypt' country, he has not noted or commented on any additional features

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common to the various habitats in which he has found the butterfly. Nor is it certain if the eucalypt to which he refers is in fact E. radiata, the Common Peppermint, which is not really abundant in the country in which he is presumed to have collected.

Gooding's reference to the ants as 'Iridomyrmex' may be due to the extreme difficulty in having these insects identified in the past, a situation which is little improved even today. The fact that he was able to transfer larvae successfully to a colony of ants attending H. delicia delos larvae suggests that both instances involved a Crematogaster species, a small black ant which elevates its shiny, heart-shaped abdomen when disturbed.

Information supplied by interstate collectors in unpublished communications tends to suggest that the butterfly ceases to fly soon after midday, will not fly in windy weather, and appears only on very hot, still days. The specimens recently taken by Morton while intuitively investigating a promising hill-topping area, a shaly, residual rock-pile in the river valley, possibly 100m above the present river level, departed from all these suggested pre-requisite conditions. The first specimens were taken well into the afternoon, there was a moderate southerly wind blowing, and the day was not exceptionally hot. Although a well-defined structure, the hill is flanked to the east and west by the much higher ranges forming the river valley, and dominated by dry box-forest.... a likely enough locality for the Ogyris olane, Hypochrysops delicia delos and other species which were in evidence, but one of the last environments the writer would have associated with this Pseudodipsas.

Gooding has asserted that the species is at its peak during November (although first captures were in December), but noting that it is recorded from the A.C.T. in December, February and even March, the writer followed up Morton's discovery and visited the area on December 31st, 1976. The weather was extremely hot, and soon after arrival in the area, a scorching north wind sprang up, making conditions very unpleasant. Dozens of Candalides hyacinthinus were present in the sparse undergrowth of the hill, and with each lull in the wind numbers of O. olane appeared around the tree-tops, accompanied late in the day by H. delicia delos, but, save for a possible single sighting soon after arrival, no P. cuprea were seen.

The long journey from Melbourne discourages frequent trips to this area, but a favourable weather pattern suggested that one more visit might be desirable before reaching any conclusions on the flying habits, and times of appearance, of the species. Accordingly the writer, accompanied by Mr D.F. Crosby, re-visited the hilltop on January 8 this year, in ideal weather conditions. The day was sunny and very warm, with a slight southerly breeze which strengthened during the day. On arrival at the hilltop just after 11 a.m., a single, relatively fresh male P. cuprea was netted as it settled on a twig some five metres from the ground. No additional specimens were seen during the next 90 minutes or so, and it was decided to investigate some other ridges in the valley.

A likely-looking ridge of the same purplish shale was sighted some 2 km to the north, and here we were fortunate enough to take a further six specimens during the afternoon, five of them very freshly-emerged males and a single female. With these, both O. olane and H. delicia were again flying.

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in rather greater numbers than on the first hilltop, and in generally fresher condition.

While maintaining a vigil for P. cuprea, it was possible to compare the behaviour of the three species in their tree-top domain. While both O. olane and H. delicia would range from tree to tree when disturbed, sometimes roving for a considerable distance, and males of each would vigorously defend their selected perch from all intruders, P. cuprea was loth to depart from the tree it had selected, it remained unmoved by the close passage of either of the other two species, but would instantly attack intruders of its own kind.

This reluctance of P. cuprea to move from its selected territory eliminates any prompt 'replenishment' from nearby trees as one territory becomes vacant by removal of its occupant, and is assumed to have given rise to the impression that the species ceases to fly soon after midday. Fresh emergences, or territorial re-arrangement, may have the vacated territory reoccupied on succeeding days. The relative abundance and freshness of P. cuprea and H. delicia on this second ridge, and the presence of a female P. cuprea, may indicate a nearby breeding habitat, but time did not permit more than a very brief look at the environment. If both species are associated with the same Crematogaster sp., as is possible, they may co-exist even within the same ant colony, and hence occur on Acacia as well as within dead limbs and stumps of Eucalypts.

Morton's discovery suggests that all known Victorian records for the butterfly involve areas at no great distance from Eucalyptus/Acacia associations along waterways. All are south of the Divide, but this may be coincidence. There appears to be no relationship to geological structure, or to flora on any of the rises on which the butterfly 'hill-tops'. The presence of H. delicia is a positive indication of Crematogaster in an area; and may serve as a useful indicator of the possible presence of P. cuprea. Although it is not possible to extend this generalisation to cover the two early records for the very similar P. brisbanensis cyrilus, Crematogaster, H. delicia and Acacia mearnsii certainly still co-exist in near-coastal areas, and P. brisbanensis may yet be re-discovered by those with time, patience, and a neck which will withstand the torture of peering skywards for long periods.

Postscript:

Since preparing the draft for these notes, several additional visits have been made to this area, and have progressively added a little to our knowledge of the butterfly.

i) The flying period is now known to extend well into February. The last visit to the locality was made on February 16. Two of four specimens taken were chipped, but all appeared quite freshly emerged, and it seems likely that odd specimens may be on the wing as late as March, as in the A.C.T.

ii) On the last visit, a specimen was taken late in the day on a dry ridge some ten miles (16 km) south of the original locality, again in poor red stringybark scrub on the same purplish shales, the surrounding area dominated

by box-forest.

iii) Until the February visit, the only ants noticed in the vicinity were occasional wandering Iridomyrmex spp., a few weak colonies of Camponotus nigriceps, and under stones, one shy species, possibly also a Camponotus but very distinct from C. nigriceps and of a pale yellowish-green colour. At some distance from the more northern locality, but still on the same ridge, a strong colony of Iridomyrmex nitidus (?) was found in a fallen log. At the time of that last visit however, several colonies of the same ant were observed actively constructing their byres on both living and dead Eucalypt trunks on the original hilltop. As larvae of Pseudodipsas myrmecophila are invariably associated with (apparently) the same ant, the possibility of an association of P. cuprea with this ant cannot be entirely discounted.

iv) The Wellington River valley, in a roughly north-south line in its lower reaches, is scoured by frequent and quite violent north winds, at least during the summer months. P. cuprea has not been observed on the wing on any occasion on which the wind, however light, has been from this quarter.

v) A total of some 18 specimens are now known to have been taken within this general area.

REFERENCES:

WATERHOUSE, G.A. and LYELL, G. Butterflies of Australia. (Angus & Robertson, Sydney, 1914).

GOODING, C.G.L. in Latrobe Valley Naturalist 95, November 1971. (Latrobe Valley Field Naturalists' Club.)

Footnote: There is an obvious need for systematic study of this entire genus. Scarcity of material in the past has been a major handicap, and until existing material can be examined in detail, it is not possible to state whether the Victorian insects are identical with P. cuprea from further north. Dr I.F.B. Common has indicated in a personal communication that there appear to be distinctions between specimens from the A.C.T. and those from the central coast of N.S.W. At least one new species, from the north coast of N.S.W., at present awaits description.

New Address.

Mr Ray Vagi has advised that his new address is 140 Spring Street, Regent, Vict.

A Passing Thought

An observant collector is a successful collector, but remember to observe first. To this might be added that a thoughtful, observant collector will record those observations for publication.

Junior Mumber's Page.Collecting Lepidoptera in Queensland!

By Kelvin Dunn (13)

Last October I went to Cairns, and on my first day there saw lots of Papilio ulysses joesa as they appeared, about every five minutes, flying around the tops of trees. In the Botanical Gardens near Cairns one landed on a flower no more than a metre away from me. It would have been a most easy catch. Outside the Gardens I captured many Catopsilia pomona pomona, Papilio aegaeus aegaeus males, Euploea core corinna, Precis hedonia zelima and one Papilio ambrax egipius.

Kuranda proved disappointing for I caught only one butterfly, Tellervo zoilus zoilus, and it was not easy to net. Hypolimnas bolina nerina were found abundantly at Redlynch near Cairns, and Port Douglas proved a good spot for Cressida cressida cressida, but Acraea andromacha andromacha was a hard species to find. I saw only one, and that too was at Port Douglas.

Although I didn't manage to catch any of the species, Barron Gorge was a good spot for Papilio agamemnon ligatus. There were hundreds flying round the tree tops but they hardly ever came lower down. I didn't see any Ornithoptera priamus euphorion. There were a number of Grass-yellows in the Cairns area. Species recognised were Eurema hecabe phoebus, E. smilax, E. laeta lineata and E. herla. I did not find a good spot for Hypolimnas alimena lamina, and saw only one or two as we moved along.

Dunk Isle was the best place on the trip to view butterflies, and species seen there included Papilio ulysses joesa, Pachliopta polydorus queenslandicus, Papilio aegaeus aegaeus, Delias argenthona argenthona, D. mysis mysis, Cupha prosopoe prosopoe, and hundreds of Danis cyanea arinia. This last species preferred the undergrowth and not bare patches in the sunshine like other butterflies.

While moving south from Cairns to Brisbane, I did not catch much at all. I saw a lot of Hypolimnas misippus males hill-topping near Townsville, but did not notice any Danaus plexippus in northern Queensland. At Noosa Heads I saw my first and only female Papilio aegaeus aegaeus of the trip. Unfortunately I did not have my net with me at that moment, so I could not catch it. I did not see any sign of Ornithoptera priamus richmondia in southern Queensland.

Just about everywhere I went seemed to be a National Park. One Ranger in Cairns near the Barron Gorge pulled up and said "I hope you are not catching butterflies." We replied that we were, and were told we were in a National Park. Dad enquired then just where it started and finished, to which the reply was "I don't know!"

Well, Kelvyn, it's like this....

Kelvyn Dunn, the 13-year-old author of the preceeding article, is our youngest member. His achievements to date, which recently received some publicity in a Dandenong provincial newspaper "The Journal", suggest that he is to retain an interest in entomology for a long, long time if that interest is not destroyed by ignorant bureaucracy.

Had he not been denied the opportunity of collecting within that National Park, he might well have already been delving into the secrets of those species he was unable to net, observing their habits, their predators, their hosts and other facets of their life-cycles about which there is still so much to be learned. Can there be anything more discouraging to the generation which, so soon, will bear the responsibility of caretaking these remaining strongholds of our lepidopterous fauna? Could there possibly be any action more specifically capable of destroying the very interest so essential to the attainment of an understanding of insect faunal management? Kelvyn's experience of course is not unique.

Very soon, Kelvyn, you will come to appreciate that when compared with the natural decimation caused by all manner of predators -- ichneumons, braconids, many diptera, fungi, bacteria and viruses, reptiles, birds and mammals -- the butterfly collector's impact on the vast majority of species is totally insignificant. At this time you will, as others have done, become aware of the disastrous effect on the environment man's depredations continue to exert. Kelvyn, you were quite correct. Just about everywhere one might wish to collect in coastal Queensland turns out to be National Park or State Forest, and collecting taboo. The areas are commendable, but in themselves an admission that too much has already gone. Governments continue to sell off National Parks; timber, cattle and cane interests continue to gnaw into State Forests, while the entomologist, denied access, stands by quite literally watching bulldozers tearing the very same environment to ribbons.

Kelvyn's active mind will soon discover too that the Japanese do not exploit their own extensive forests for financial gain. These are a priceless and sacred part of the Japanese culture, certainly secure while there are gullible, greedy, and perhaps even corrupt governments, just a little too willing to plunder the heritage of a nation for their own immediate gain. He might wonder perhaps, if the butterfly-collector is such an efficient ecological disaster, just why their assistance was not sought to control the cabbage white when it appeared here in 1938, instead of handing over to biological and chemical controls.

As experience in his chosen field develops, it will become apparent to him that there are, nevertheless, a few species which could benefit from some measure of protection or habitat-conservation, but which have received no attention; and that those species which have been afforded 'protection' do not require it. Will he wonder, too, as others have done, if this was not a confidence trick perpetrated on a gullible bureaucracy for the financial gain of a few?

-ooOoo-

F o r S a l e

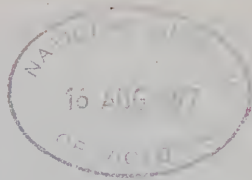
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VICTORIAN ENTOMOLOGIST



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-ooOoo-

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F. Hallgarten, S. McIvey, R. Manskie, O. Rogge, A. Atkins
(co-opted member).

Diary of Coming Events

Friday, August 26, 1977. General Meeting (amended date). Guest Speaker
Dr. Gordon Gross, South Australian Museum - "Something on our
Australian Heteroptera - for it was hereabouts that a lot of the
action was."

October Excursion: Toolern Vale Area. Possible date October 23rd.

Friday, October 21, 1977. General Meeting. Discussion forum. Various topics.

November Excursion: Acheron Way. Details to be decided.

Friday, November 18, 1977. General Meeting. Film Night.

Friday, December 16, 1977. Members' Night.

Coffee will be available at meetings.

Letter to the Editor.

The Treasurer.

Re-election of our Treasurer, un-opposed, un-resisting and of course unpaid, appears also to have been accomplished un-noticed. Bob has now been our treasurer for many years — about ten he says, but can't remember either without resorting to his little black book which of course he did not have with him — during which time he has put in many hours of work. Lest he should ever get the impression that his work has gone unappreciated, I feel that this state of affairs must be rectified and should like to extend to him my personal thanks, and, I am certain the thanks of all members, particularly those who have worked with him within the Council.

-signed W.W.B. Quick.

-oo0oo-

Editorial.

The news bulletin has unfortunately been suffering lately from an acute chronic disease known simply as lack of an editor. I have taken this position on in the hope that by providing a stable base from which to work that better continuity and hopefully bigger and better news bulletins will be provided. This brings me to the point of announcing: I will always need material for upcoming issues. I have always maintained and will continue to maintain that a society's news bulletin is for communication between its members. It is not the sole province of its editor — besides there is nothing more monotonous than reading oneself in print time and time again. I think that you'll find this August issue contains a reasonable collection of notes and articles — most however are very general and not very specific. If in the future you, the reader, would prefer to see some quite specific and scientific articles interspersed with more general and popular ones, please let us on the Council and your "friendly editor" know. In this issue I have included a 'puzzlo' from a member who, incidentally, prefers to use a pseudonym. If you feel in any way inhibited in contributing an article because your name will be disclosed, please feel free to do the same — use a pen-name. I will respect your wish for anonymity. Hopefully you'll be able to find a few things that pertain to your interests (coleopterists excluded unfortunately) and maybe a few that will expand those areas, make you see something differently or even direct you to new topics, in this issue. To continue with a stimulating news bulletin, not just one with the usual "dry" much-of-a-sameness reports of minutes, I am dependent on member input. All articles must come from you the reader for this news bulletin to remain viable, and that doesn't mean just the other 70 members — IT MEANS YOU. In the near future write to me about something entomologically related: personal or scientific. Are you interested in any special insect groups? Have you had an interesting collecting trip? Do you know anything about pollination, pesticides, insect behaviour, mimicry or insect ecology? The topics are endless

Springtime is almost on us once again and many of you entomologists will be getting busy again preparing for the next collecting season. Insect activity is once again increasing rapidly and so will that of our Society — so please send us those badly needed articles.

At the time of going to press I received an unexpected postcard from one of our Society's intrepid members, at Coen. Nigel Quick went to Kuranda to do some hard work, so we were led to believe, but wouldn't you believe it, Grant Miller inveigled him into a quick collecting excursion to Iron Range. He did some collecting just NW of Laura where he found some Zetona delospila, Trapezites macqueeni and a good race of Ogyris hewitsoni. Ah well, that's life.

-ooOoo-

A Request for Lepidopterists.

Dr. Garth is a marine biologist very interested in butterflies and he has written several small books on American species. He would very much like to correspond and/or exchange specimens with an interested Australian collector. Dr. Carth is registered with the Department of Science to receive exports of insects from Australia.

Dr. Garth's address is - The Director,
Alan Hancock Foundation,
University of Southern California,
Los Angeles,
California, 90007 U.S.A.

He can also be contacted at his private address -

515 Nebraska Avenue,
Long Beach,
California, 90802 U.S.A.

- E. Matheson.

-ooOoo-

Current Project.

Geitoneura klugii: Data relating to the seasonal appearance and flying period of this species is required, and a note should be made to keep comprehensive records of dates during the coming season. (See note on page 43 of this issue).

Of Passing Interest.

'Tis a woodland enchanted —
There, in warm August gloaming,
With quick, silent brightenings,
From meadow-lands roaming,
The firefly twinkles
His fitful heat-lightnings. JAMES RUSSELL LOWELL.

THE PRESIDENTIAL ADDRESSSome Impressions of Amateur Entomology.

By J.C. Le Soeuf *

This evening I am speaking to you as an amateur. My object is to try to persuade you to promote entomology as a hobby for the amateur. With the ever shrinking hours of labour there is more and more leisure time to fill in. Recently "The Herald" had a quotation - 'Use your leisure to your utmost - don't become a cabbage when you might be doing something creative.' This will surely present a challenge to the new Executive of our Society - to try to publicise the many fascinating sidelights of entomology - insect life-histories, predators, foodplants, distribution and overall ecology.

As you know there is rarely a mention of entomology in the Press nowadays except of a sensational nature. What a pity it is that there is not a Charles Barrett, Crosbie Morrison or Norman McCance to deal with the subject in their weekly columns, but no doubt someone with the same general interest in insect life as they had will surely turn up in the future.

In his address to the Jubilee Dinner, Tom Greaves had something to say about the "greats" of the past. Great in the sense that they described many new species in their lifetimes. Of the professionals, I had the pleasure of meeting Messers Froggatt, Musgrave and McKeown, each friendly and helpful in the extreme to the amateur collector. But here I propose to make a few comments about some of the amateurs I have known in the past. While some have contributed much to taxonomy, others have been much less spectacular in adding to our entomological knowledge in the study of life histories and species distributions.

Two of Tom Greaves' amateur "greats" were Messers Waterhouse and Lyell, the former a leader in butterfly lore of his day while Lyell is remembered for his magnificent collection now incorporated in the National Museum of Victoria. Dr. Waterhouse was an avid correspondent, sometimes writing twice a week. Always thrilled to receive specimens new to him he was forever describing at length his own collecting trips to the Blue Mountains and other places near his home at Killara on the North Shore of Sydney. One of the sad happenings in my entomological career occurred when I rang Dr. Waterhouse one day years ago, just after I had arrived in Sydney, only to learn that he had just suffered a coronary and Mrs. Waterhouse was waiting for the doctor to arrive.

On a cold winter's day, early in my collecting career, Mary and I went to lunch at George Lyell's place at Gisborne. What a pleasure it was to meet this cheery, white haired little chap still full of enthusiasm in the later years of his life. Amongst the treasures he gave to me was a specimen of Hypochrysops narcissus, a real treasure in those days.

As I have already said, what a pity it is that we don't have a Charlie Barrett amongst our membership today. A great pity it is too, that present day newspaper editors do not have more interest in the wonderful life that lives in the mud rather than just the mud for its own sake. I always remember Charlie as a bright, smiling chap always ready for a bit of a yarn.

* Godfrey Street, Blairgowrie, Victoria, 3942.

However, I'm afraid that Charles Barrett had the reputation of a "scissors and paste" naturalist to some of his colleagues. Be that as it may he probably did more to promote natural history amongst the population both young and old than anyone else. I seem to have hundreds of his articles and news paragraphs amongst my newspaper cuttings, mainly from the "Herald" and "Weekly Times". Thousands of his little Sun Books were sold with bits of news from his magazine "Pals", as well as a number of full length books.

In the more modern medium of radio many will remember the homely voice of Crosbie Morrison with his weekly talks on Natural History. At the time he was widely known for these broadcasts, his newspaper articles and, of course, the nature magazine "Wild Life". On one occasion years ago, I was asked to give a talk on butterflies to the Field Naturalists Club. You can imagine my embarrassment when Crosbie Morrison spotted an Anthrenus in one of the cases I had brought with me for exhibition. He indeed left his name on the local scene. It was a sad day for natural history when his untimely death was announced.

As I have said so often, I still feel that the study of entomology is quite the most satisfying hobby. There is always something to look for, whatever the country is like, always questions to be answered. The field is without limit for one lifetime. Even in my garden at home there are more than 50 species of small moths as well as various other insects I've not yet had time to investigate. Even President Tim recently introduced me to one of his little pets on a leaf of a wattle in our lawn.

Although it was Llew Gooding who first fired me with the desire to collect butterflies and moths, it was Ras Wilson who kept the flame going in my adult years. Ras, with his sallow complexion, old grey hat and cardigan, khaki pants and leggings and inimitable pipe, has influenced many of our members here tonight. In his quiet way he was a promoter of entomology with his unfailing courtesy to anyone who showed the slightest interest in the subject. Son of a country clergyman, he spent much of his young days at Beaconsfield among the Helmeted Honeyeaters. He was educated at Wesley and joined the manufacturing section of Moran & Cato as an analytical chemist where he stayed for some 47 years. He was president of our Society on four occasions and was probably the leading light in its formation. He wrote a number of entomological papers for the Victorian Naturalist and several on ornithology for the "Emu". He spent much time with collectors in his study, furnished with its cabinets and library, identifying specimens or chatting about entomology in general. However, it was in the bush that the real fun of collecting was enjoyed to the utmost. His interest in birds in his younger days and his rambles with the Field Naturalists gave him a wide knowledge of the outdoors. With his knowledge of both Coleoptera and Lepidoptera he was always able to find something of interest in the bush be it summer or winter. A regular feature of those outings with Ras was losing his tobacco pouch. We never worried as he quickly retraced his steps by the line of upturned logs and rocks and soon retrieved it again. His dislike of snakes provided us with much mirth on the occasions we came across them. Always full of fun, there was one extraordinary occasion when he was a picture of complete misery, resting his elbows on the windowsill of a Donna Buang hut looking blankly into space — he had left his net at home. Most of his meticulous collection has now been incorporated into the National Museum of Victoria's collection, but

he has passed on some of his great knowledge to those with whom he came in contact. His other interests were his Saturday tennis and his stamp collection.

One day in 1937, in the course of my occupation of selling radio sets, I called at the farmhouse of a property in the hill country around Moe in Gippsland. The owner of the farm I learnt was Llew Gooding. In conversation he told me of his interest in insects and invited me in to show me some of his storeboxes of beautifully mounted butterflies and moths. That was forty years ago and those storeboxes have now grown in number to house probably the largest private collection in Australia of some 100,000 specimens. Not only is there a comprehensive array of local Lepidoptera, but through exchange he has acquired many specimens from interstate and overseas. He is particularly proud of his collection of Fritillaries. The value of such exchanges became apparent one day when I called on Llew with Norman Tindale. Tinnie had been asked in America to look out for a particular rare American butterfly, as there did not appear to be any in U.S. collections. I remember Tinnie's elation when he found one and photographed it in the daylight out on the lawn. What a fund of research material there will be for future workers in this vast collection. This collection is particularly valuable as he has collected specimens for many years in the one locality throughout the seasons.

A side light on the eccentricities of collectors in earlier days occurred when I typed a few carbon copies of a small newsletter and chain-lettered it among members and collectors. On one occasion I mentioned a large flight of Hepialids taken by Llew Gooding at Moe. Shortly afterwards a box for Llew arrived at the station from George Lyell requesting a cut of the take. This was not at all appreciated by Llew who promptly returned the box empty. Now in his eighties, Llew retired to Warragul some years ago but he still maintains a very keen interest in collecting and exchanging Lepidoptera. Known far and wide for his Hepialid collection, he still takes the light out for them when the opportunity arises.

Dr. Norman B. Tindale would probably be one of the "great" amateurs of Tom Greaves. He is not a Victorian nor even one of our members, but I feel that I must make some passing reference to him as he has done so much work on Victorian Lepidoptera. He is well known to many of us that this might seem a little unnecessary. Up to 1964 he had published 161 scientific papers of which thirty were on entomology. These papers included his "Revision of the Ghost Moths" in 7 parts up to date. He is still continuing this task in America as can be seen in the last Lepidopterist's Newsletter where there is a note from him in the Research Requests asking for Hepialid specimens. With his wide knowledge he was indeed an exhilarating companion in the bush. He was a professional museum worker, reaching the position of Acting Director of the South Australian Museum. Although he did start work as an entomologist he was forced to change to the Department of Anthropology due to an unfortunate accident on an expedition many years ago. He lost the sight of one of his eyes due to a stove explosion with the result that his doctor suggested the change of occupation. Apart from the Hepialidae he has described a number of Victorian butterflies and he is currently working on the genus Geitoneura Australia wide. It is to be hoped that when next he visits Melbourne it will be at a time when he has an opportunity of meeting more members of the Society.

Alec Brown was Secretary of the Society for a number of years. His main

interest was in moths although he did quite a bit of butterfly collecting. He was well known for his permanent supply of Ogyris abrota on some big eucalypts near the present highway at Cheltenham. A chronic sufferer from asthma, he never really enjoyed good health. He spent most of his working life in the warehouse of Paterson, Laing and Bruce in Flinders Lane. He joined us in several excursions and was always helpful in the identification of moth larvae of which he had quite a wide knowledge. It was sad to hear that his lifelong ambition to collect in Cairns was spoilt by having almost constant rain. His moth collection is now incorporated in the reference collection of the National Museum of Victoria.

We first met Bill Mules on an excursion to Lang Lang in 1941 when I can recall him climbing a blackwood in search of Pseudalmones chlorinda. Happy-go-lucky Bill, a keen bushman and observant collector, was to become our constant companion on many collecting trips and campouts. Educated at Adelaide's leading public school, he spent most of his early adult life on the land in the Flinders Ranges. He came under the influence of Lea during the early part of his life, and the enthusiasm of his early collecting in South Australia can clearly be seen in his correspondence with the late Dr. Waterhouse. These letters are now incorporated with the Waterhouse correspondence and papers now stored in Canberra. Although there were a number of drawers of butterflies and some hepalids in his collection, his main interest lay with the Buprestidae or jewel beetles as they are otherwise known. There are nine drawers of well documented specimens among the cabinets that were bequeathed to Richard Pengelley, a regular member of our Society, some years ago. So that there is some record of the more interesting butterfly specimens in this collection, an appendix has been attached to the end of this article. Recently, Richard was good enough to allow Andrew Atkins and myself to go through the collection just to see what there was. We are hoping that when Richard returns from his overseas trip, he will rejoin the Society and share with us the wide knowledge he has gained in recent years, carrying on the tradition of his step-father.

Another coleopterist of the same period, who did much to add to the knowledge of the order, was Charlie Oke. He was for some years employed in the National Museum's Department of Entomology, where he retired from in 1953. His personal collection of some 10,000 specimens was presented to the Museum in 1958. He published a number of papers, describing 22 genera and 177 new species. A comprehensive list of these and his collection was published by Arturs Neboiss in the 1964 Memoirs of the National Museum. For some reason he did not see eye to eye with Ras and I have been in the entomological room of the National museum with both of them working there but avoiding each other like the plague. Although he collected widely, he was particularly keen on the Inglewood area and he introduced us to the spot at East Warburton where on the 25th of Feb. 1967, on a Society excursion we captured 28 species of Stigmodera between us, a record for this group.

I have dealt with only a few of the older amateur members I have known, but there are many others who have also added to our knowledge of entomology in one way or another. Although I have excluded our present day members, I feel that I would be remiss if I did not mention Keith Hateley. There are few entomologists that I can recall who have done as much as Keith in promoting the study of insects. How many times over the years have we heard his - "Hang on a minute and I'll run you out to the Desert". There must be few

naturalists who have passed that way who have not had the pleasure of Keith and Mary's hospitality. His infectious enthusiasm for the wild life of the Little Desert must have had quite a bearing on many of today's collectors. Surely the ideal way to promote an interest in the fascinating creatures that are to be found in the countryside is to share this knowledge with others.

Our society now has an opportunity to expand and diversify more than it ever has in its history but this will depend on how much each one of us can do to promote the study of entomology in all its aspects. There remains so many questions about insect behaviour and distribution for the patient investigator to answer. It is now our pleasant duty to get behind our now President, Dr. New, and his executive to ensure the continued success of the Society for the next 50 years.

-oOo-

APPENDIX: Some specimens of interest in the M.W. Mules Collection.

Xonica klugii mulesi Burns, 1948. * now referred to the genus Goitoneura.

Allotype Female- Wardang Island, S.A., collected early Nov. 1937 by A. Burns.

Paratypes. Male- Wardang Island, S.A., collected 15 Oct. 1938 by M.W. Mules.

Male- Wardang Island, S.A., collected 15 Oct. 1938 by M.W. Mules.

Male- Wardang Island, S.A., collected 15 Oct. 1938 by M.W. Mules.

Female- Wardang Island, S.A., collected 15 Oct. 1938 by M.W. Mules.

1 male, Wardang Island, S.A., collected early Nov. 1939 by M.W. Mules.

Ogyris amaryllis parsoni Angel, 1951.

Paratype. prob. Male- Aileron, N.T., collected by Angel. (date unknown).

Ogyris genoveva splendida Tindale, 1923.

2 pairs- Craddock, S.A., collected by M.W. Mules. (date unrecorded).

Ogyris idno halmaturia Tepper, 1890.

1 female- Kiata, Vic., collected "1945" by M.W. Mules.

Trapezites symmorus sonbra Waterhouse, 1932.

1 female- Cairns, N. Qld., collected by M.W. Mules. (reared ex pupa).

-ooOoo-

LEPIDOPTERA QUIZ

Unscramble the letters to find the common names of 8 Heteronympha species:

- | | | | |
|---------------|---------------|------------|------------|
| 1. yberdgehit | 3. kbsna | 5. petsotd | 7. entrews |
| 2. eldosrran | 4. dsrheleodu | 6. rowdne | 8. moormc |

- Genoveve.

-ooOoo-

Current Project.

Oreixenica lathoniella herceus: Distribution data is still being collected. Ideally, this will be entered on Entrecs Individual Record Sheets, and is required to further the completion of a Distribution atlas of the butterfly.

Minutes of the Annual General Meeting held at Clunies-Ross House
on 17th June, 1977.

Mr. J.C. Le Soeuf opened the meeting welcoming all members and visitors including Mr. and Mrs. Adams and Mr. C. McCubbin. Apologies were received from Mr. A. Atkins, Dr. A. Neboiss, Miss L.M. White and Mrs. J. Burns. Minutes of the last Annual General Meeting were read and the motion that they be accepted was proposed by Mr. P. Carwardine and seconded by Mr. F. Hallgarten and was carried by the meeting.

Election of Office Bearers then began -

PRESIDENT

Nomination: Dr. T. New.
Proposed: Mr. J.C. Le Soeuf.
Seconded: Mr. R. Field. ELECTED

VICE-PRESIDENTS

Nomination: Mr. R. Field.	Mr. J.C. Le Soeuf.
Proposed: Mr. J.C. Le Soeuf.	Dr. T. New.
Seconded: Dr. T. New.	ELECTED Mr. R. Field. ELECTED

SECRETARY

Nomination: Mrs. J. Field.
Proposed: Mr. J.C. Le Soeuf.
Seconded: Dr. T. New. ELECTED

TREASURER

Nomination: Mr. B. Condron.
Proposed: Mrs. M. Le Soeuf.
Seconded: Mr. R.C. Manskie. ELECTED

EDITOR

Nomination: Mr. A.A. Calder.
Proposed: Mr. N. Quick.
Seconded: Mr. J.C. Le Soeuf. ELECTED

COUNCILLORS

Nominations: (1) Mr. R. Manskie.
(2) Mr. P. Carwardine.
(3) Mr. G. Burns.
(4) Mr. F. Hallgarten.
(5) Mr. O. Rogge.
(6) Mrs. J. Burns.
(7) Mr. S. McEvey.
(8) Mr. D. Crosby.
Proposed: Mr. J.C. Le Soeuf.
Seconded: Dr. T. New. ELECTED

Mr. R. Field suggested that Mr. A. Atkins be co-opted by the committee as a councillor for the period of 1977-78 that he is in Australia.

SECRETARY'S REPORT

Perhaps there has been little change from those admirable days when our Club was founded. The spirit of those days, rekindled by Mr. Le Sueuf in 1961 when the Entomological Society was reformed, inspired our first magazine 'Wings and Stings' the fore-runner of 'The Victorian Entomologist'. If any message becomes clear to a Secretary holding office for just one year it is one of co-ordination in the efforts and enthusiasm of others - not just of the committee, but that of all members with various interests.

Always threatened by lack of material contributions, 'The Victorian Entomologist' has survived through the efforts and encouragement of its Editors and the support of its contributors over the years. The challenge is still there. The magazine, like the Society itself, reflects thoughts and kindles curiosity for entomology in a manner of fellowship described by its expressed aims. Not that the magazine should be 'high-brow', for surely the Society does not discriminate between the professional and amateur. This, I think, is the strength of the Society. The Victorian Entomologist has always supported the exchange of data and observation free from bias, no matter the age or status of its contributor or author.

ENTRECS is a scheme we can be justly proud of. This is the first and only attempt to catalogue and map Victorian insects on a data retrieval basis. It was heartening to receive support for this scheme by contributions from A.P.M. Forest Ltd., Shell Chemical Australia Ltd. and Cyanamid Australia Pty. Ltd. during 1976.

The members of our Society and their friends were treated during the year to interesting and well conducted collecting trips to Rushworth and Skipton, whilst the educational excursion to the Entomological Department of the Victorian Plant Research Institute was most successful. Informative talks were given at General Meetings by Mr. D. Crosby (Collecting in Western Australia), Mr. R.H. Fisher (The Butterflies of South Australia), and Mr. O. Rogge (Insect Photography). Many exhibits were displayed at each meeting. Early in 1976 our past President, Mr. J.C. Le Sueuf, expressed his wish for a celebration of the Society's Jubilee. The great success of the Jubilee Dinner held in April this year was a measure of the fine organization and effort contributed by Mr and Mrs. Le Sueuf.

Under the guidance of our new President and his council we can now look forward to an interesting entomological year, starting with the important Australian Entomological Society Annual General Meeting, to be held at La Trobe University. This event will give many of us a chance to meet many of our interstate entomological friends. Let us hope that many more productive years await the Entomological Society of Victoria - a challenge to our junior members perhaps? The spirit of those foundation days should be allowed to continue and not fade as the 'Red Admirable' of Nabokov's Dr. Kinbote (Pale Fire) ".... One's eyes could not follow the rapid butterfly in the sunbeams as it flashed and vanished, and flashed again, with an almost frightening imitation, of conscious play which now culminated in settling upon my delighted friend's sleeve. It took off, and we saw it next moment sporting in an ecstasy of frivolous haste..... Then the tide of the shade reached the laurels, and the magnificent, velvet-and-flame creature dissolved in it".

TREASURERS REPORT

Mr. B. Condron stated that there is \$216.90 in the publication account and \$404.70 in the cheque account. There are 54 financial members. The proposal that the treasurers report be passed was proposed by Mrs. J.C. Le Soeuf and seconded by Dr. T. New and it was carried by the meeting.

CORRESPONDENCE

A letter from Dr. I.F.B. Common, C.S.I.R.O. Division of Entomology, Canberra was received requesting any new information about butterflies for the second edition of "Butterflies of Australia" by I. Common and D. Waterhouse, but all new information should have been published.

AMENDMENT TO THE CONSTITUTION

After discussion of the ambiguity in the Constitution regarding membership of people who are 18 years old, Mr. J. Hallgarten proposed that ordinary members be defined as "persons 18 years and over on January 1st paying an annual subscription". The motion was seconded by Mr. C. McCubbin and was carried by the meeting. A second amendment that "Student Members" be altered to "Junior Members" was proposed by Mr. B. Condron and seconded by Mr. R. Field and was carried by the meeting.

The constitution now reads:

Membership

- (a) ORDINARY MEMBERS are persons 18 years and over on January 1st paying an annual subscription to the society.
- (b) JUNIOR MEMBERS are members under the age of 18 years on January 1st and paying an annual subscription to the society.

(The above amendment to the constitution was proposed and adopted by the AGM and they are published here prior to formal ratification at the October Meeting. -Editor.)

GENERAL BUSINESS

Donations to a portrait fund to honour Ian McKerras were requested. It was again emphasized that the date of the next meeting has been altered to August 26th to coincide with ANZIAS and Gordon Gross from the South Australian Museum will be the speaker. As a number of guests are expected to attend the meeting members are asked to bring a plate of food for supper. On Sunday August 28th, all members are invited to a lunchtime barbecue at the Black Spur with the Australian Entomological Society. Members should bring their own food.

EXHIBITS

- (1) Mr. O. Rogge had photos of the Jubilee Dinner copies of which can be obtained through him.
- (2) Mr. A. Kinsella displayed a box of butterflies many of which had been caught near Melbourne.
- (3) Mr. B. Condron displayed some specimens of flies.
- (4) Dr. T. New had some Oak Leaf Miner specimens displayed.

Dr. T. New thanked the retiring President Mr. J.C. Le Soeuf for all his work and encouragement through the Jubilee year. Dr. T. New also welcomed the new committee and said that any suggestions from members would be welcomed.

The meeting closed at 9.45pm and was followed by coffee.

-ooOoo-

Minutes of the Committee meeting held at Clunies-Ross House
on Friday 15th July, 1977.

The President, Dr. T. New chaired the meeting. Those in attendance were, Mr and Mrs. R. Field, Mr. and Mrs. G. Burns, Mr. F. Hallgarten, Mr. B. Condron, Mr. P. Carwardine, Mr. A. Atkins, Mr. O. Rogge, Mr. D. Crosby, Mr. A. Calder, Mr. S. McEvey and Mr. R. Manskie. Apologies were received from Mr. and Mrs. Le Soeuf. The minutes of the previous meeting of Council were passed.

It was decided that the re-wording of the Constitution which was approved in principle by the General Meeting in June would be published in the August issue of the Journal, and would be ratified by the members at the October meeting. This is to comply with our Constitution which requires that any change to our Constitution be published at least two weeks before being passed.

TREASURERS REPORT

Credit balance \$479.67. Financial members 65.

It was suggested that in future a deposit will be asked for when members book for functions to overcome the problem of having not enough members attend to cover costs.

CORRESPONDENCE

M.C.E.G.S. has notified us of the availability of their camping facilities at Licola. Members will be asked their views on a weekend excursion to this area at the next meeting.

The Victorian National Parks Society asked for any additional information that members might have on the effect of grazing in the Victorian Alps, on any entomological species.

GENERAL BUSINESS

Postal charges for our journal are to be studied.

Journal- To try to encourage more members to write articles for the journal it was decided to have a theme for the October issue of notes on Lepidoptera. Any short or long articles would be most welcome. Other items that might be included in future journals are - abstracts of recent papers, catalogue of species taken on excursions, photographs to illustrate an article and titles of recently published articles that might interest members.

October meeting- October 21st is the date and there will be short talks by a number of members followed by a general discussion. Mr. F. Hallgarten will give a talk on collecting Coleoptera, Dr. T. New will give a talk on artificial diets, Mr. P. Carwardine will describe how to catch a butterfly without a net and Mr. R. Field, Mr. A. Atkins and Mr. D. Crosby will also give short addresses.

November meeting- The November meeting will be a film night. The possible titles are -

1. Darwin and the Insects of Brazil.
2. Operation Phasmatid.
3. Some current research activities in the division of Entomology.

Jubilee exhibition- The exhibition will be discussed in detail at the next council meeting.

Field Excursions- In September an excursion to a Research Institute may be held depending on membership response to such a suggestion. In October the excursion has been planned for the Toolern Vale area. The proposed date is October 23rd. In November an excursion to the Acheron Way will probably be held. Details for this excursion will be discussed further at the next Council meeting.

-ooOoo-

Requests for Information.

Geitonoura klugii:

A request was received from Dr. N.B. Tindale for information on the period during which Geitonoura klugii (Lepidoptera: Satyrinae) appears on the wing in Victoria. First and last dates of sightings or taking of specimens are requested. This is in relation to a study being undertaken by Dr Tindale on the possible co-existence (in certain areas of Australia) of two physically similar taxa, separated only by differing flying periods. The validity of this concept was demonstrated very convincingly to a number of members when he was last in Victoria.

Members are urged to advise Dr Tindale direct at their earliest convenience of data relating to collection specimens, and to make a diary note to observe the species more objectively next season. Records should consist of locality, date and collector as minimum data.

Dr Tindale's present address is: 2314 Harvard Street,
PALO ALTO, CALIFORNIA 94306. U.S.A.

Insect fauna of the north-central province of Victoria:

An enquiry from the Land Conservation Council (L.C.C.) directed to Dr Arturs Neboiss (Dept. Entomology, National Museum of Victoria Annexe) sought information regarding the insect fauna of their north-central province of Victoria, in particular information relating to any species restricted or largely confined to that area.

(A point worth making in regard to both these requests is that information of this nature could very readily have been extracted from the Entrecs data bank had we been a little further advanced, or a little more enthusiastic in forwarding data from our own collections. If nothing else was gained, they do however provide two further examples of the potential use of such a system.

- W.N.B. Quick.)

Phyllonorycter messaniella (Zeller), Oak Leaf-miner:

This European moth has only recently been recorded from Australia, although it has been the subject of biological control attempts in New Zealand for some 20 years. Common (1977, J. Aust. ent. Soc., 15: 471-473) did not include any Victorian records of this moth in his paper, but recent examination of oak trees in the Melbourne area has shown that the species is very well established. In the Royal Botanic Gardens alone, some 20 species of Quercus on the 'Oak Lawn' are attacked and a very high proportion of the leaves of some species are mined. The Director, Dr. Churchill, has kindly given permission for a one year survey of the parasites of the moth in the Gardens, and Dr New recently collected the first of a series of samples during May. Parasitism of caterpillars is higher than anticipated, possibly due to a

'pre-winter' build up, and about 500 individual chalcid wasps (representing about five species, with one very abundant) have so far been reared.

Dr T. New (Dept. Zoology, La Trobe University) would be very interested to know of 'mined' Oak trees in other parts of Victoria, so that he can get some idea of the distribution of this apparently recent introduction to our fauna.

Ocybadistes walkeri:

In late March this year Andrew Kinsella (54 Renwick St., Glen Iris) saw a single freshly emerged Ocybadistes walkeri Heron, in East Brighton, near the corner of Hawthorn Road and Davey Avenue. He would be grateful if any members living in that area could look out for more specimens and let him know if they find any.

-oo0oo-

OCTOBER MEETING

At the beginning of the main collecting season, many people are looking towards clarifying various aspects of life histories, rearing larvae, searching for early stages etc. etc. It is proposed to hold a discussion meeting around these topics and to try to cover such topics as : where and when to find early stages; how to rear them efficiently; containers; foodplant maintenance and artificial (emergency) diets. It is expected that the emphasis will be on Coleoptera and Lepidoptera, and several members have indicated their willingness to talk for a few minutes on some of the above topics. Please bring your own comments, queries, exhibits, slides and notes on 'lifehistories', and by exchanging information such as that all of us may find the season ahead more useful and rewarding. If this meeting is successful, it is hoped to hold a similar one on 'other orders', probably in February.

- Dr. T.R. New.

-oo0oo-

C O M M E N T .

Much concern is currently being shown on the future of Victoria's alpine regions, and the Victorian National Parks Association has produced several publications advocating the establishment of a large national park in the eastern highlands of Victoria. Their policy statement for such a park (V.N.P.A. Journal 106A, August 1976) lists as one of their primary objectives "to preserve and protect the natural environment, indigenous flora and fauna and other scientific interests". Cattle and sheep grazing may prove to severely disturb the fragile alpine ecosystems and much of the controversy over the future of the Victorian Alps is linked with argument over the effects of such grazing. If any members have factual comments, based on their own experiences, on the effects of grazing on abundance or distribution of alpine insect species or plants, such information would be welcomed by the V.N.P.A. (324 William Street, Melbourne 3000) as soon as possible.

- Dr. T.R. New.

-oo0oo-

An extended hike through the Wellington and Wonnangatta river valleys.

By Andrew Kinsella. *

In December last year I went hiking with the school's hiking group in the mountains north of Heyfield. We left the base camp on Breakfast Creek (near the Wellington River) on Saturday 11th. December and hiked up to Mt. Tamboritha by following the spur on the east side of Breakfast creek. On the lower reaches of the mountain there were very few butterflies, maybe because it was early morning and the forest was fairly open and dry. Neolucia agricola and N. hobartensis appeared in reasonable numbers about half way up the mountain. The vegetation there changed to an alpine type with a lot of "bacon and egg" type plants, and some very wet patches with a lot of ferns and mosses. From Mt. Tamboritha we walked across Bennison Plains, which has been badly churned up by cattle. Some areas of mountain ash forest had been logged but seemed to be regenerating well. There were a number of marshy areas with a lot of Carex on the southern side of the plain. We camped by Shaws Creek in a patch of almost undamaged alpine bush. Unfortunately we arrived too late to see anything flying and it was raining the next day. Several years ago D. Norton camped there in early January and found Oreisplanus munionga, Anisyta dominula, A. monticolae, Graphium macleanus, Oreixenica orichora, Heteronypha solandri, H. cordace, H. paradelpha and Neolucia agricola.

On the next day we got a lift to Guy's Hut with one of the masters who was in charge of the camp. From there we hiked to Bryce's Gorge at the head of Conglomerate Creek (this gorge is very spectacular and is only $1\frac{1}{2}$ miles off the main road; it is well worth walking to), and then down into the Dry River. There is a lot of heavy bush on one side of the valley and more open forest on the other side. From there we hiked to the Wonnangatta River, which has cut itself a very wide, deep valley. Most of the valley floor is grassland, cattle are grazed on it, and there are thousands of flies. We stopped at the ruins of Wonnangatta Station and looked around, there were a lot of fruit trees planted by the settlers as well as the remains of a house and sheds and a cemetery. We camped about 6 kilometres downstream from the station.

The weather was excellent the next morning, which was just as well as we had to cross the river about 8 times and cold, wet feet are very unpleasant in bad weather. Then we climbed up to Mt. Oon Guerard by following Hemes Spur, the track was very steep and rocky even though it is supposed to be passable to 4-wheel drive vehicles. The forest was mainly fairly open and dry throughout the range and going up the spur it was swarming with butterflies - Trapezites eliena, T. phigalioides, T. phigalia, Pasma tasmanica, Candalides heathi, Neolucia agricola and N. hobartensis. Part way up the spur we took a side track to avoid having to climb a huge knob. We had lunch along this track, right under a large colony of Pseudamenus chlorinda which appeared to be centered about a large Acacia dealbata. We reached the Wongungarra River just before dark and had dinner there because there was a lot of wood handy and there was plenty of flat grassy ground right next to the river. Unfortunately we had to hike farther to reach our destination (which we reached

* 54 Renwick Street, Glen Iris, Victoria, 3145.

at 1am). It was marked on the map as a hut but had only a roof and one wall and had great lumps of earth kicked up by the cattle, as we discovered when we lay down on them and tried to go to sleep.

The next day was warm and sunny and after crossing a low ridge we went to look at a deserted mining town called Talbotville - all that was left was an old chimney, a few scattered bricks and bottles; some English trees and a cemetery. Luckily for us the road which lead out of Talbotville was a very well graded old coach road, built during the gold rush, which has stayed in very good condition despite its years of disuse. The forest in this area was also fairly dry and open. There were a lot of butterflies - the same species that were seen the day before, except Ogyris olane was common and there were no P. chlorinda. We had lunch at another deserted mining town called Grant. There was excellent water in an old mine shaft, around the mouth of which there were a lot of fresh Vanessa itea, feeding on a patch of nettles. Some of the forest between Grant and the main Dargo road was heavy mountain ash forest which had been recently logged in some places. We arrived at Dargo just in time to get into the general store there and buy some extra food, and camped in a park just across the river near the town.

We planned to leave Dargo early and have a swim at our next campsite, Rock of Gibraltar on the Wonnangatta River, where there are some very deep swimming holes but the weather was worsening rapidly so we stayed in Dargo, as we had such a good campsite, until mid-afternoon. It started raining just after we left Dargo and poured for 2½ hours. As soon as we approached the Wonnangatta Valley the flies started appearing everywhere despite the rain. The only butterfly I saw was Candalides xanthopilos at about 5pm.

As we discovered the next morning the river was waist deep and flowing so strongly that all 8 of us had to link arms and cross together to avoid being swept away by the current. After we crossed the river we hiked up Mt. Valentia which is about 1600 metres high. It is one of a range of mountains that has a very steep slope facing the Wonnangatta Valley and all of the peaks are surrounded by cliffs which make it important to stick to the right track. We followed what was supposed to be a fire access trail up the spur to Mt. Valentia, but had 3 metre trees growing right in the middle of it. The forest was mainly fairly open and dry and slowly changed to an alpine type of vegetation with a lot of snow grass and bacon and egg plants and other bush peas. There was an excellent view as far as Bass Strait from Mt. Valentia and there was a fire tower on the top of the Pinnacles, a series of very steep cliffs. The vegetation all along the top of the range was alpine in nature and on the southern side was a huge mountain ash forest. There were only a few Neolucia butterflies about, as the weather was very bad with sleet and a cold southerly wind. As our group leader was in a hurry to meet the master when he delivered our food drop we hiked until 7pm without stopping for lunch. We camped at Billy Goat's Bluff, which has excellent views to the south-east. As the master had forgotten to leave some water we had to spend an hour looking for it.

On the next day we had planned to hike to Shanty Hollow, near Mt. Kent leave our packs there and walk to the Snowy Bluffs, but once again the

weather was bad, although it cleared by nightfall. Instead, we walked to Kent Creek, a few miles short of Shanty Hollow and camped there instead. The southern side of the range is being logged in many places.

Our target for the next day was Moroka Gorge, and although it was only $3\frac{1}{2}$ kilometres downhill from us it took us about 4 hours to make the distance as there are no tracks to the Gorge (it was only re-discovered in the 1960's). The bush was extremely dense mountain ash with a lot of Myrtle Beech, (Nothofagus) and Pomaderris and the valley was very steep. We had to side track around about 6 waterfalls and climb down several other cliffs. It was well worth the hard walk down there as Moroka Gorge is the only place which I have ever seen which looks absolutely untouched by men, there are no tracks and no cattle, no loggers and no rubbish. The gorge is very narrow and has tall cliffs on each side with the Moroka River flowing through in a series of waterfalls and rapids. At the best of times it only gets 3 hours of direct sunlight. We spent several hours exploring it and I caught one P. chlorinda and found a number of Tisiphone abeona and Oreisplanus perornatis larvae. As the gorge floor is so narrow it took us a long time to find enough room to pitch our tents.

The weather on the next day was warm, still and sunny. We took all of the morning getting out of the gorge through thick, knee height scrub, with a lot of very spiky Hakoas and fairly small trees. Around Cromwell's Knob the vegetation was alpine and there were many butterflies - Graphium macleanianus, T. abeona (not at the summit), Candalides hyacinthinus and H. morope. From Cromwell's Knob there was an excellent view to as far away as Mt. Buffalo. The southern side of Cromwell's Knob was mountain ash forest which had been logged but was regenerating well, I saw a few Delias harpalyce there. We had lunch on the Moroka River in the Wellington Plains in late afternoon. The plains are lightly forested and clear in parts grazed by cattle. From the Moroka River we walked to Mt. Wellington, which has a bare summit surmounted by a huge cairn of rocks, around which a number of V. itea were fighting for space. The view from this cairn is excellent in all directions. We walked across the rest of the Wellington Plains and reached the track to the Wellington River just before nightfall. The plains west of Mt. Wellington have been absolutely ruined by cattle which have either eaten or trodden all of the ground cover into the mud and left a nasty, smelly mess. We wanted to get to the bottom of the spur by the end of the day but we were so tired that we stopped half way down and slept without putting up a tent and without having dinner.

We continued down the spur (Rigalls Spur) on the next morning, stopping at Echo Point to look at Lake Tali Karng (a lake formed by the valley being blocked by a landslide), and the Sentinels, a summit above the lake. The Trapezites skippers were common on the medium height and lower parts of the spur and there were a few Neolucia there. We stopped at the Wellington River to have dinner, breakfast and lunch all in one meal. The Wellington Valley is densely forested with a tangle of Bursaria, Pomaderris and Acacia decurrens, and on the southern side was open forest with a fair amount of Lomandra and a lot of wildflowers. Along the valley I saw one Delias harpalyce, a number of Trapezites skippers and a large Jalmenus evagoras colony. The weather was very hot, so we were glad that we had to

cross the river so often (18 times in 5 or 6 miles). Near one of the river crossings I just missed catching a female Hypochrysops byzos and saw several others. Near Shaws Gap there is a series of conical hills and knobs which looked to have excellent potential for hill topping butterflies. D. Morton found Paralucia aurifera and Nacaduba biocellata very common in the valley in early January as well as some of the butterflies which I have already mentioned. We reached the base camp in late afternoon, having hiked 250 kilometres in 10 days.

-ooOoo-

APPENDIX: A list of the 28 species of Lepidoptera mentioned by A. Kinsella as occurring in the Wellington and Wonnangatta River valleys.

HESPERIOIDEA

Hesperiidae.

Pyrginae -

- Trapezites eliena (Hewitson).
- T. phigalioides Waterhouse.
- T. phigalia (Hewitson).
- Anisynta monticolae (Olliff).
- A. dominula (Plotz).
- Pasma tasmanica (Miskin).
- Oreisplanus munionga (Olliff).
- O. perornatus (Kirby).

PAPILIONOIDEA

Papilionidae.

- Graphium macleayanum (Leach).

Pieridae.

- Delias harpalyce (Donovan).

Nymphalidae.

Satyrinae -

- Heteronympha merope (Fabricius).
- H. paradelpha Lower.
- H. solandri Waterhouse.
- H. cordace (Geyer).
- Oreixenica orichora (Meyrick).
- Tisiphone abeona (Donovan).

Nymphalinae -

- Vanessa itea (Fabricius).

Lycaenidae.

Lycaeninae -

- Pseudalmenus chlorinda (Blanchard).
- Jalmenus evagoras (Donovan).
- Ogyris olane Hewitson.
- Hypochrysops byzos (Boisduval).
- Paralucia aurifera (Blanchard).
- Nacaduba biocellata (C. & R. Felder).
- Neolucia agricola (Westwood & Hewitson).
- N. hobartensis (Miskin).
- Candalides hyacinthinus (Semper).
- C. xanthospilos (Hübner).
- C. heathi (Cox).

-ooOoo-

Entrecs Scheme.

During the absence of Nigel Quick interstate, enquiries relating to the Entrecs programme should be made to -

Andrew Kinsella,
54 Renwick Street,
GLEN IRIS, VIC. 3146.

Telephone 29-4113.

Supplies of Field Cards, Single-Species Cards and the new Individual Record Sheets will be available from him.

Contributors to the Entrecs Scheme, June 20, 1977.

Atkins, A.F., 18/ 17-19 Spring Road, Springvale South, V. 3172.
Barrett, V.J., 147 Canterbury Road, Blackburn South, V. 3130.
Bishop, A.D., Dept. Zoology, University of N.S.W., P.O. Box 1, Kensington, N.S.W. 2033.
Burns, G., 3 Inglis Street, Morningside, V. 3931.
Crosby, D.F., 7 Russell Street, Toorak, V. 3142.
English, J.R., 302 Lower Heidelberg Road, East Ivanhoe, V. 3079.
Field, R., 51 Sandells Road, Teoma, V. 3160.
Fisher, R.H., 468 Goodwood Road, Cumberland Park, S.A. 5041.
Hallgarten, F., 6 Park Street, Pascoe Vale, V. 3044.
Holmes, D., "Holmden", Red Hill, V. 3937.
Hutchinson, J.F., Scoresby Hort. Res. Inst., P.O. Box 174, Ferntree Gully, V.
Kelly, A., 9 Foden Street, West Brunswick, V. 3055.
Kelly, P.G., 260 The Boulevard, East Ivanhoe, V. 3079.
Kinsella, A.J., 54 Renwick Street, Glen Iris, V. 3146.
Le Souef, J.C., Godfrey Street, Blairgowrie, V. 3942.
McCubbin, C.W., 6 Manniche Avenue, Box Hill North, V. 3129.
McEvey, S., 5 Gissing Street, Blackburn South, V. 3130.
Manskie, R., 8 Smith Road, Mulgrave, V. 3170.
Morton, D.E.A., 25 Bella Vista Road, Glen Iris, V. 3146.
Owen, Dr. A.B., Laurindel Hospital, Bundoora, V. 3083.
Quick, W.N.B., 20 Alimar Road, Glen Waverly, V. 3150.
Rogge, O.H., 29 Ballard Avenue, Coburg, V. 3058.
Rouse, A.J., 8 Stonehaven Court, Toorak, V. 3142.

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NON-CONTRIBUTING COLLECTORS - AUTHORISED ABBREVIATIONS.

Numerous specimens collected by the following are represented in various collections. Authorised abbreviations for insertion in the 'collector' panel of the I.R.S. are listed below.

Burns, A.N.	B-AN	Landy, J.	L--J
Cole, C.E. (in NMV)	C-CE	Langley, C.	L--C
Drake, C.M. (in NMV)	D-CM	Lyell, G.	L--G
Gooding, C.G.L.	GCGL	Mules, M.W.	M-MV
Harris, E.J.	H-EJ	Trebilcock, R.E.	T-RE
Hateley, K.	H--K	Wilson, F.E.	W-FE
Jackson, R.G.	J-RG		

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THE
VICTORIAN ENTOMOLOGIST



Journal of
The ENTOMOLOGICAL
SOCIETY of VICTORIA

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as a periodical - Category B.

Membership

Any person with an interest in Entomology shall be eligible for Ordinary Membership. Members of the Society include professional, amateur and student entomologists, all of whom receive the Society's journal, the "Victorian Entomologist". The Society encourages corporate membership of schools and Study Groups, of Libraries, and of University and Departmental staff.

Objectives

The aims of the Society are:

- (a) to stimulate the scientific study and discussion of all aspects of entomology,
- (b) to gather, disseminate and record knowledge of all Australian insect species,
- (c) to compile a comprehensive list of all identifiable Victorian insect species, and
- (d) to bring together in a congenial but scientific atmosphere all persons interested in entomology.

Meetings.

The Society's meetings are held at Clunies-Ross House, National Science Centre, 191 Royal Parade, Parkville, V. at 8 p.m. sharp on the second-last Friday of even months, with the possible exception of the December meeting, which may be held one week earlier. Lectures by guest speakers or members are a feature of many meetings, at which there is also ample opportunity for informal discussion between members with like interests.

Annual Subscriptions, 1977.

Ordinary Member	5.00 (Aust.)	Approx. 6.50 (U.S.)
Student Member (Under 18)	2.00 "	" 2.60 "
Journal posted surface mail.		
Associate Member	2.00 (Aust.)	

No additional Joining Fee is payable. Associate members, resident at the same address as, and being immediate relatives of an Ordinary Member, do not automatically receive a copy of the Society's publications, but in all other respects rank as Ordinary Members.

Contributions to the "Victorian Entomologist"

The Society welcomes contribution of articles, papers or notes pertaining to any aspect of entomology for publication within the Journal. Contributions are not restricted to Members, but should be responsible and original, preferably typed using double spacing. Statements and opinions expressed are the responsibility of the respective authors, and do not necessarily reflect the policies of the Society.

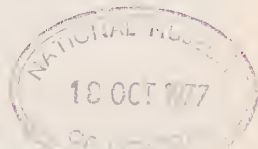
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The ENTOMOLOGICAL SOCIETY of VICTORIA

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Councillors: Mrs. J. Burns, Messrs G. Burns, P. Carwardine, D. Crosby,
F. Hallgarten, S. McEvey, R. Manskie, O. Rogge, A. Atkins.

Diary of Coming Events

Friday, October 21, 1977. General Meeting. Discussion forum- various topics.

EXCURSION TO TOOLERN VALE, Sunday October 23rd.

Friday, November 18, 1977. General Meeting- Film Night.

EXCURSION TO NARBETHONG, Sunday, November 20th.

Friday, December 16, 1977. Members' Night.

Coffee will be available at meetings.

Minutes of the General Meeting held at Clunies-Ross House
on 26th August, 1977.

Dr T. New welcomed all members and visitors especially our speaker Dr. Gordon Gross. Apologies were received from E. Quick, D. Stewart and F. Hallgarten. Minutes of the April meeting were taken as read and the motion that they be passed was proposed by A. Neboiss, seconded by R. Field and passed by the meeting.

CORRESPONDENCE

Information regarding a campsite with reasonably good facilities at Licola have been received from M.C.E.G.S. and members were asked to think about the possibility of hiring it for a weekend, possibly in early 1978.

GENERAL BUSINESS

The final ratification of the changes to the constitution will take place next meeting.

Congratulations to Andrew Calder for the fine presentation of the last magazine were offered by Dr T. New on behalf of all members. More articles are always required and since Andrew is typing all the stencils himself he has asked that they be in as early as possible. Australia Post is in the process of re-registering all periodicals, including our journal, and it is possible we will have higher postage charges to pay.

EXHIBITS

- (1) Andrew Atkins had a beautiful painting of three described races of Trapezites symmorus and a possible fourth race.
- (2) Ray Manskie displayed a selection of butterflies collected from Coffs Harbour and New England region.
- (3) Kelvyn Dunn showed a box of butterflies mainly from the Mt. Gambier area.
- (4) Zoo Le Souef had a box of assorted Heteroptera.

A very interesting talk was given by Dr G. Gross on some aspects of Australian Heteroptera, and Mr J.C. Le Souef proposed the vote of thanks. The meeting officially closed at 9.45pm and was followed by coffee and supper.

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Minutes of the Council Meeting held at Clunies-Ross House
on 16th September, 1977.

The President, Dr T. New chaired the meeting. Those in attendance were, Mr and Mrs J.C. Le Soeuf, Mr and Mrs Burns, Mr and Mrs R.P. Field, Mr P. Carwardine, Mr S. McEvey, Mr F. Hallgarten, Mr A. Calder and Mr R. Manskie. Apologies were received from Mr B. Condrón. The minutes of the council meeting held on 15th July were read and the motion that they be passed was proposed by Mr P. Carwardine, seconded by Mr G. Burns and passed by the meeting.

October, 1977.

CORRESPONDENCE

Journals had been received from the Queensland and New South Wales Entomological Societies, as well as from C.S.I.R.O.

An article for the journal had been received from Dr G. Gross, of the South Australian Museum.

EDITOR'S REPORT

The ever increasing cost of the publication of the journal was discussed in some detail. At the moment it costs about 40cents per copy, but every extra page adds considerably to the cost. There was much discussion regarding professionalism in the journal and whether we should allow the journal to be abstracted. It was finally decided to encourage any article and that abstracting brings much needed publicity to the Society.

To allow more money to be spent on the journal if necessary it was decided to alter the second by-law of the Society to read -

"All monies spent on publication of the journal must be separately accounted for in the treasurer's annual report".

This proposal was put up by Dr T. New, seconded by Mr R.P. Field and passed by the meeting.

EXHIBITION

After much discussion it was decided to continue with the plans for the exhibition to be held probably in October 1978. Mr R.P. Field proposed that a sub-committee be formed to assess the feasibility of holding the exhibition on the scale we want and to report back at the next committee meeting. Mr J.C. Le Socuf is to chair the sub-committee.

ENTRECS PROGRAM

As a Society we are committed to pursuing the scheme. It was decided that priorities should be set, e.g. entries on simple, easily identifiable families, perhaps Victorian Pieridae and Papilionidae by the middle of next year. It was decided to invite Mr A. Kinsella to our next council meeting.

EXCURSIONS

The next two excursions, one to Toolern Vale and the other to the Acheron Way were discussed and the details will be given in the journal and at the next meeting.

MEETINGS

The next two meetings were discussed briefly. The October meeting will take the form of a forum and the November meeting will be a film night.

NAME TAGS

It was decided to make more permanent name tags and Mrs N. Manskie has kindly agreed to write them.

The meeting was closed at 9.50P.M.

Report on the Australian Entomological Society Ninth Annual General Meeting and Scientific Sessions.

The meeting was held at Glenn College, La Trobe University, from Thursday 25th to Sunday 28th August and consisted of the Annual General Meeting (Business session) on Thursday evening, followed by two days of scientific sessions and finishing with an excursion to the Black Spur. The Annual General Meeting was attended by about 35 members. Dr. C.N. Smithors, from the Australian Museum, Sydney, was elected as President for one annual term, replacing Dr. E.N. Marks who had been President for the past two terms. Professor I.W.B. Thornton and Dr. T.G. Amos were re-elected for two annual terms as Vice President and Secretary respectively and Dr. P. Williams and Mr. V. Salanitri were elected as Regional Councillors for Victoria.

Sixty delegates registered for the scientific sessions which commenced on Friday morning. Five papers were presented in the General Entomology section, these included aspects of ant behaviour, bioassay for a granulosis virus, drosophilid fauna, colony odour in social Hymenoptera and insect migration. The afternoon session was entitled "Strategies for Survival" and included papers on the use of insecticide-resistant predatory mites in orchards, host identification, biology of the oak leaf miner and the student award paper presented by Ms J.A. Smith on the study of Tasmanian Psephenidae.

On Saturday morning the meeting continued with six papers related to forest entomology. The topics presented included insect defoliators of eucalypt, Coleoptera on acacias, termite bioassays of cypress pine wood extracts, gut bacteria in termites, toilet rolls to detect subterranean termites and ant fauna in Western Australia. The afternoon session dealt with four papers on mosquitoes, one on the morphology of ichneumonid larvae and four related to osmotic regulation in insects.

On Saturday evening about 70 people attended the Annual Dinner at the Staff dining room at Glenn College. The good food, wine and the company made it a most enjoyable evening.

On Sunday about 40 people, including many from the Victorian Entomological Society, attended the BBQ at Fernshaw, near the Black Spur. The weather was perfect as it had been all throughout the meeting, and this provided a congenial setting for many informal discussions. It was even suggested that in future the AES Annual General Meeting should be devoted almost entirely to field excursions. An appealing thought, but who could guarantee the weather in Victoria in August?

Overall the meeting was highly successful, informative and at times entertaining. Thanks must go to those who presented papers and special congratulations go to the organizing committee, especially Peter Williams (Plant Research Institute) and Tim New (La Trobe University).

O B I T U A R I E S.ALEC H. CHISHOLM O.B.E.

The death of Alec Chisholm on the 10th July, 1977, at the age of 87, brought to a close probably the most outstanding figure to grace the literary scene in Australia in recent times.

Known mainly as an ornithologist, historian and author, it was a side-light on his interest in birds that brought him to give an address to our Society. On the 2nd August, 1934, he gave a talk entitled "Strange relationships of birds and insects". One of his favourite subjects for years was the use of ants as delousers by birds.

Although his prodigious writings will be listed in other publications, it should be recorded here that our members once had the pleasure of hearing this outstanding naturalist.

Over many years, I have valued his friendship although with infrequent meetings recently. Sadly, it was one day in 1960 when Mary and I were having lunch with Alec Chisholm and Keith Hindwood in Sydney, that we learnt from them of the death of Ras Wilson in a news item in the previous day's Sydney Telegraph.

- J.C. Le Souef.

JOHN SAMUEL BARNES.

The death of Jack Barnes on the 2nd September, 1977, leaves a gap in the ranks of those who helped guide the destinies of the Society in its early days.

Joining as a member in 1963, he soon took an active interest in Society affairs. It was for his work in establishing the journal "Wings and Stings", first appearing in August 1965, that he will be remembered. He wrote a number of papers on various subjects including comments on the exotic insects he encountered in his daily work with the Quarantine Section of the Customs Department. Here, he found many interesting and sometimes potentially dangerous pests in timber during his duty as an inspector.

He was elected President of the Society in 1967 before his visit overseas, the following year. He continued his interest in Diptera after his retirement, eventually resigning from the Society through ill health. He took up painting latterly, concentrating mainly on landscapes, many of which have been seen in various art exhibitions.

To his wife and family, the Society extends its deepest sympathy.

- J.C. Le Souef.

New Guinea Butterflies - Part IIGaraina.

By R.H. Fisher *

Some 130 kilometres south of Lae the Waria River flows southeast along a pleasant valley between the Bowutu Mountains and the northern limits of the Owen Stanleys. It turns north again to reach the Huon Gulf near Morobe. The valley has a climate admirably suited to growing tea and an experimental tea plantation and factory had been established at Garaina by the Australian Administration. At the time of my visit the plantation was being managed by Angus Hutton who, in his spare time is a lepidopterist.

To reach Garaina one takes a scheduled commercial flight from Lae. We left at first light in a small Beechcraft and headed out over the Huon Gulf. We were soon surrounded by heavy cloud and could see nothing until abeam of Morobe, when we turned and headed inland along the Waria River. Soon we were in bright sunshine and could see Garaina below. We dropped gently between the mountains and settled softly on one of those bright green grassy patches which, in New Guinea, are called airstrips.

Angus drove us to his house in a small vehicle as the aircraft disappeared into the bright blue sky in the general direction of Popondetta. The road passed between fields of tea (Camellia sinensis) planted in uniform rows and bordered by lines of tall Albizia stipulata, used sometimes for shading crops from the tropical sun. The manager's homestead was idyllically situated close to the rim of a deep gorge, beyond which were the inevitable New Guinea mountains, blue with the haze of distance, rugged, and often capped with clouds. The rim of the gorge formed part of the homestead garden and had been planted with a variety of tropical plants, and between the taller branches of these a number of very large spiders had spun their magnificent webs. The view of the distant mountains through these strange webs was quite dramatic. Butterflies were abundant, but these were to receive my closer attention next day.

After several cups of what is undoubtedly the finest tea I have ever tasted we left with Angus in his small truck to do a spot of collecting in the nearby mountains. John Womersley wanted to look for a Nepenthes (pitcher) plant, one of several insectivorous plants that occur in New Guinea, while I hoped to see a specimen or two of the rare protected Ornithoptera goliath - one of the largest birdwing butterflies - and to collect what other unprotected material that came my way. For a small fee a couple of the local youths agreed to carry our gear as it is an advantage to have both hands free for collecting. These youngsters' eyesight, too, is far superior to ours, and once they got into the fun of the game they find all sorts of things and are quite capable of capturing most of them without a net.

This was, in fact, my third visit to New Guinea and I had long since learned of the need to make a clear decision concerning one's major objectives. It is just not possible, in New Guinea anyway, to carry a still camera with

* 468 Goodwood Road, Cumberland Park, South Australia, 5041.

its endless accessories, a movie camera (with preferably, a tripod), binoculars and a tape recorder, as well as the multitude of jars and tubes and boxes that a lepidopterist seems to think he needs along with his net. For one thing, travel in New Guinea is often by air and airline companies are strangely sensitive about excess weight. (There was the time an old chap from Kainantu was off-loaded from the Fokker at Lae because of the parcel he was carrying, a parcel that was found to be his wife, who had died, and was being taken back to her village for burial). Another thing is that the abundance of material in these tropical regions makes it desirable to restrict one's interest to a particular field in order to do it justice. And so I travelled light, reluctantly passing up many opportunities to record in various ways the other things I saw and heard.

Angus's truck was a remarkable machine and reminded me somewhat of what might be called a basic insect. There was the head, with its compound eyes, the thorax, where you sat and the abdomen, which must surely have been segmented or articulated in order to negotiate the needle-sharp bends in the track that had been hewn from the mountainside. We followed this track for several kilometres but soon had to leave the truck to begin a long walk down a slippery path into a deep valley, passing through forest which was open at times, but more often dense and dark. We avoided at one stage, a patch of a stinging plant (Dendrocnide sp.) that makes our own Urtica spp. seem like Veldow. I took a number of specimens of Hypochrysops sp. flying over bare patches of ground along the path. I also caught a stout-bodied Charaxes latona feeding at animal excreta, and others of this group including Polyura jupiter, rather like our Australian P. pyrrhus and Prothoe australis, with bright blue-green basal areas to its wings. All these butterflies are extremely fast fliers and are almost impossible to capture until they settle.

At the bottom of the valley there was the usual boulder-stream stream and a number of skippers were flying over the damp sand and settling on the warm rocks. I collected several species, one of which I had not seen before, and had a brief discussion with some local people who were washing clothes in the stream. Most of the people I came across in areas such as this were friendly and were usually associated with a nearby mission. Conversation with them was limited because of my very restricted capability with the fairly universal pidgin language, but with continued practice I was able to make myself understood, on occasions, I think.

My young assistant and I had lunch in a grassy patch by the stream and he set about to provide the liquid refreshments by making a belt from a piece of vine and climbing an almost vertical coconut palm in a matter of seconds. After tossing down a few fruits he returned to earth and removed their husks with a pointed stick. The cool liquid contents of these fruit, straight from the trees, has to be experienced; it cannot be described.

Refreshed we walked on down the valley and soon met John and Angus returning from an unsuccessful attempt to find their plants. The track along the stream was damp and slippery and closed from direct sunlight by the dense foliage above. The atmosphere was hot and moist, and there were several Taenaris sp. along the way. I thought of Don Sands and his son Michael who, at an early age, had become particularly interested in this group of strange and fascinating butterflies with the staring eye-spots. There was also a

large and grotesque, green grasshopper which I failed to catch before it leaped off its perch and disappeared into the forest.

Returning up the side of the valley we heard the call of a bird of Paradise and were able to locate it with binoculars way above us in the tops of the trees. It was difficult to see through the foliage but could be identified as the red bird of Paradise (Paradisaea raggiana). We reached the truck and headed back stopping once or twice at a stream to see what we could find. At one spot Angus waded up the stream disturbing as he did, some thousands of a small lycaenid (Erysichton lineata) which were settled on the vegetation along the banks. I had not seen such numbers of any one species before - they were like myriads of flying ants and flew in clouds about his head. There were other species too, including some bright yellow Eurema spp., but the density of the lycaenids was such that a single sweep of the net would entrap some thirty or forty individuals. I also saw several Hypochryseps spp. settled usually on a large green leaf, but these butterflies are so active that one has to be particularly quick with the net to catch them. At the slightest disturbance they fly off with a flash of blue, but often return to the same leaf so that if one is patient there is often a second chance.

We dined well that night on Indian curry and some remarkably good wine, quite a surprising combination considering the isolation of Garaina. After dinner we looked at Angus's excellent collection of butterflies, and stepped outside into the tropical night on one occasion to watch some fireflies.

I spent most of the next morning collecting a great variety of things that were attracted to the very beautiful garden surrounding the house. The most striking of the many local species was undoubtedly the pierid, Delias aruna, the male rich orange-yellow and black above and with the black underside broken chiefly by a small scarlet spot near the base of the hindwing. Variations in the size of this scarlet area have given rise to the recognition of a number of subspecies including inferna from northern Queensland. This is a high-flying species, and one needs a net with an extended handle, but on one occasion I watched the mating behaviour of a pair just a metre above the ground, the female resting with wings outspread and abdomen extended upwards, the male circling slowly above. At night this species is said to cluster beneath bamboos, where it can be collected without a net.

I saw or collected a great many other species from all the usual families but although the birdwing Ornithoptera priamus was common near the house I failed to see a specimen of goliath on the wing. Reluctantly we left that afternoon, joining a group of horticulturalists who had flown in from Port Moresby en route to Lae. Laden with packets of tea we climbed aboard their chartered DC3 and took off gently, heading soon towards the coast. We crossed the narrow neck of land at Salamaua at almost tree-top level to see the white beaches and the beautiful blue lagoon. The scene was scarred only by some rusting hulks of war machines lying just beneath the water, but clearly visible from the air. Ten minutes later we landed back at Lae.

Something on our Australian Heteroptera -
for it was hereabouts a lot of the action was.

By Dr. G. Gross. *

In the days when it was thought that the continents were fixed in position, but that the connections between them (such as the Indonesian Archipelago, the Behring Strait and the Isthmus of Panama) had had a history of alternate foundering and elevation, the most popular hypothesis explaining the distribution of modern plants and animals was one first proposed by Matthews and supported in its last years by Darlington. Their hypothesis saw the Old World tropics, especially those of South-East Asia as the cradle of evolution. There, it was held, an evolutionary ferment was in the process of producing successively higher and more successful forms.

From this veritable Pandora's Box life radiated and continued to radiate to the ends of the earth. The further one was from the centre, the more primitive the fauna and flora, as this element had begun its perigrinations earlier than later forms which were still en route. Areas such as South America and Australia, where the connecting land bridges may for a time have foundered, may maintain and embellish a primitive element isolated from the more advanced forms by the intervening sea until the land connections were re-established and then the more primitive elements of the fauna would receive short shift from the flood of more advanced invaders.

Arguments against this idea by southern biologists who saw unexpectedly close relationships between the biota of southern South America and Australia, and sometimes southern Africa also, were dismissed as being due to each at this stage only having received the more primitive forms. No satisfactory explanations were forthcoming from the Matthew's School as to why it was only the Old World tropics which were so productive of new forms or why, when dispersal began, so few changes occurred in those migrating.

It is now confirmed that the continents are in fact moving a few centimetres each year and that Australia, Antarctica, South America, India, Africa and Madagascar (at least) were once part of a great supercontinent, Gondwanaland. Gondwanaland was still only incompletely fractured in the upper Cretaceous when the highest plants and animals first appear on the scene in considerable numbers. This had led many biologists to reconsider modern animal and plant distributions. The relationship between the southern temperate fauna and flora of Australia and South America, and sometimes also Africa, are now widely seen as a result of the fragmentation of a formerly unified biota.

But what of the arid and tropical fauna and flora of these three continents? A case can be made for the hypothesis that the tropical biota in fact formed up along the northern edge of Gondwanaland in the Upper Jurassic and through the Cretaceous and that a lot of the South-East Asian tropical biota is in fact descended from this old tropical biota rafted north by India. Similarly, South America has contributed the main component of the tropical biota of Mexico. However, in the break up of Gondwanaland the tropical and arid portions of South America were the first to separate, whereas southern South America remained connected to Antarctica even after Australia broke away

* South Australian Museum, North Terrace, Adelaide, S.A. 5000.

from Antarctica in the Eocene. Therefore in the tropical and arid biotas the relationships are between Australia, India and Africa. In contrast the temperate biota has relationships between Australia, New Zealand and South America. The picture in the tropics (particularly) is confused by migration of the Matthew's type but in both directions.

Groups of insects which have had a major development in the southern continents both while they were part of Gondwanaland and after their separation are the Isoptera, Heteropterous bugs, Nematocerous Diptera, Formicidae and dare I suggest, Lepidoptera. In the Heteroptera there are numerous evidences - the whole of the bones of the evolution of the generic groups within the Pentatominae are revealed in the Australian fauna and the Australian ant mimetic Miridae are an amalgam of the African and South American components and richer than both.

We should not sell short this old land of ours for it was once part of a great land mass in which a number of insect groups had their major development, even their origin. These origins our fauna often faithfully reveals as well as providing an interesting picture of what further developments occurred to it after Australia had separated.

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EXCURSION NOTICES.

EXCURSION TO TOOLERN VALE Sunday, October 23rd.

Members will be departing 9.45AM sharp from the meeting place on Mt. Alexander Road just north of Essendon Station. For those using public transport to reach the rendezvous point it should be noted that - the 9.15 AM Flinders Street train arrives there at 9.32 AM., and the 9.15 AM Tram from Elizabeth Street arrives there at 9.40 AM. A second meeting place on the Calder Highway just on the Melbourne side of Gisborne at 10.30 AM is given for those of you who are travelling direct to the site.

EXCURSION TO NARBETHONG Sunday, November 20th.

Members will depart from the meeting place at Whitchose Road, Box Hill near Kangerong Road at 9.40 AM sharp. For those using public transport to reach the rendezvous site - the 8.57 AM Flinders Street train arrives at Box Hill Station at 9.24 AM. The second meeting place is at Narbethong via Healsville at 11 AM.

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LEPIDOPTERA QUIZ

The answers to last month's quiz are as follows -

- | | | | |
|----------------|---------------|------------|------------|
| 1. bright-eyed | 3. Banks | 5. spotted | 7. western |
| 2. Solanders | 4. shouldered | 6. wonder | 8. common |

- Genoveve.

Notes from a collecting trip to Cairns and Iron Range including a
new record for the Australian mainland.

By S.F. McEvey. *

Between 15 December 1973 and 11 January 1974 the author collected butterflies in North Queensland. Collecting was carried out from 1 January to 8 January in the Iron Range area, near the Claudie River and along the road to Portland Roads and for the remainder of the time in the vicinity of Cairns, from the city of Cairns to Kuranda and Ellis Beach.

The Iron Range area is one of particular interest, not often visited by collectors at this time of year. Monteith (1972) has described the features of the area and results of collecting up to that date, while Monteith and Hancock (1977) have summarized new information on the Iron Range butterflies since then.

One species not previously collected on the Australian mainland, Petrelaea dana (de Niceville), previously recorded in Australia only from Banks and Thursday Islands (Common and Waterhouse, 1972), was taken on this trip. The data for the single specimen taken are: 1 male, 5mi. N. of Iron Range Airfield, N. Q., 7 Jan. 1974, S.F. McEvey, (now in the ANIC). This specimen was collected in open forest bordering rainforest 30m away. One specimen collected at Iron Range and thought at the time to be Candalides consimilis toza (Kerr), has subsequently been determined as C. absimilis (Felder) by Mr. E.D. Edwards, Division of Entomology, C.S.I.R.O., in litt 29 August 1977. A female specimen of Hypochrysops hippuris Hewitson was also collected at Iron Range.

Species collected.

Abbreviations: C - Collected in the Cairns area only.
IR - Collected in the Iron Range area only.
C/IR - Collected in both the Cairns and Iron Range areas.

Family - HESPERIIDAE.

<u>Hasora hurama hurama</u> (Butler).	C
<u>Tagiades japeus janetta</u> Butler.	IR
<u>Toxidie inornata inornata</u> (Butler).	IR
<u>Hesperilla ornata monotherma</u> (Lower).	C
<u>Notocrypta waigensis proserpina</u> (Butler).	IR
<u>Sumiana lascivia neocles</u> (Mabille) (det. uncertain)	IR
<u>Arrhenes dschilus iris</u> (Waterhouse).	C/IR
<u>Tolicota augias kroefftii</u> (W. Macleay).	IR
<u>Cephrone trichopepla</u> (Lower).	IR
<u>Sabera dobboe autoleon</u> (Miskin).	C
<u>Pelopidas lyelli lyelli</u> (Rothschild).	IR
2 species of <u>Ocybadistes</u> Heron, await determination.	

* 5 Gissing Street, Blackburn South, Victoria. 3130.

Family - PAPILIONIDAE.

<u>Graphium macleayanum wilsoni</u> Coughman.	C
<u>G. sarpedon choredon</u> (C. & R. Felder).	C/IR
<u>G. eurypylus lycaon</u> (C. & R. Felder).	C/IR
<u>G. agamemnon ligatum</u> (Rothschild).	C/IR
<u>Papilio anactus</u> W.S. Macleay.	C
<u>P. aegaeus aegaeus</u> Donovan.	C
<u>P. fuscus capaneus</u> Westwood.	C/IR
<u>P. ambrax egypius</u> Hiskin.	C
<u>P. demoleus sthenelus</u> W.S. Macleay.	C
<u>P. ulysses joosa</u> Butler.	C/IR
<u>Cressida cressida cressida</u> (Fabricius).	C
<u>Pachlioptera polydorus queenslandicus</u> (Rothschild)	C/IR
<u>Ornithoptera priamus macalpinii</u> Moulds.	IR.
<u>O. priamus euphorion</u> (Cray).	C

Family - PIERIDAE.

<u>Catopsilia pomona pomona</u> (Fabricius).	C
<u>C. gorgophone gorgophone</u> (Boisduval).	C
<u>Eurema brigitta australis</u> (Wallace).	C
<u>E. candida virgo</u> (Wallace).	IR
<u>E. hecabe phoebus</u> (Butler).	C
<u>E. smilax</u> (Donovan).	IR
<u>E. sana</u> (Butler).	C/IR
<u>E. herla</u> (W.S. Macleay).	IR
<u>Elodina angulipennis</u> (H.P. Lucas).	C
<u>E. perdita perdita</u> Hiskin.	IR
<u>Delias mysis waterhousei</u> Talbot.	IR
<u>D. mysis mysis</u> (Fabricius).	C
<u>D. onnia tindalii</u> Joicoy & Talbot.	IR
<u>Cepora perinalis scyllara</u> (W.S. Macleay).	C/IR
<u>Appias melania</u> (Fabricius).	C
<u>A. ada caria</u> Waterhouse & Lyell.	IR

Family - NYMPHALIDAE.

<u>Danaus plexippus plexippus</u> (Linnaeus)	C
<u>D. chrysippus petilia</u> (Stoll).	C/IR
<u>D. affinis affinis</u> (Fabricius).	C
<u>D. hamatus hamatus</u> (W.S. Macleay).	C
<u>Euploea core corinna</u> (W.S. Macleay).	C/IR
<u>E. sylvester sylvester</u> (Fabricius).	C/IR
<u>E. tulliolus tulliolus</u> (Fabricius).	C
<u>E. darchia niveata</u> (Butler).	C
<u>Tellervo zoilus gelo</u> Waterhouse & Lyell.	IR
<u>T. zoilus zoilus</u> (Fabricius).	C
<u>Melanitis loda bankia</u> (Fabricius).	C/IR
<u>Mycalopsis sirius sirius</u> (Fabricius).	IR
<u>M. terminus terminus</u> (Fabricius).	C/IR
<u>M. perseus perseus</u> (Fabricius).	C/IR
<u>Hypocysta irius</u> (Fabricius).	C
<u>H. angustata angustata</u> Waterhouse & Lyell.	IR

Family - NYMPHALIDAE (cont.)

<u>Tisiphone helona</u> (Olliff).	C
<u>Ypthima arctoa arctoa</u> (Fabricius).	C/IR
<u>Neptis praslini staudingeriana</u> de Niceville.	C
<u>Pantoporia venilia moorei</u> (W.S. Macleay)	IR.
<u>P. consimilis consimilis</u> (Boisduval).	C/IR
<u>Nynes geoffroyi gucrini</u> Wallace.	C/IR
<u>Doleschallia bisaltide australis</u> C. & R. Felder.	C/IR
<u>Hypolimnas bolina nolina</u> (Fabricius).	C/IR
<u>H. alimena lamina</u> Fruhstorfer.	C
<u>Yoma sabina parva</u> (Butler).	IR
<u>Precis hedonia zelina</u> (Fabricius).	C/IR
<u>P. villida calyce</u> (Godart).	C/IR
<u>P. orithya albicincta</u> (Butler).	C
<u>Cethosia cydippe chrysippe</u> (Fabricius).	C/IR
<u>Vindula arsinoe ada</u> (W.R. Butler).	C
<u>Cupha prosopoe prosopoe</u> (Fabricius).	C/IR

Family - LYCAENIDAE.

<u>Hypolycaena phorbas phorbas</u> (Fabricius).	C/IR
<u>H. danis turneri</u> (Waterhouse).	C
<u>Narathura micale amytis</u> (Hewitson).	IR
<u>N. micale amphis</u> (Waterhouse).	C
<u>Hypochoerops hippuris</u> Hewitson.	IR
<u>Pseudodipsas eone iole</u> Waterhouse & Lyell.	IR
<u>Danis danis serapis</u> Miskin.	C
<u>D. hymetus salamandri</u> W. Macleay.	IR
<u>D. hymetus taletum</u> (Waterhouse & Lyell).	C
<u>Petrelaea dana</u> (de Niceville).	IR
<u>Prosotas nora auletes</u> (Waterhouse & Lyell).	C
<u>P. dubiosa dubiosa</u> (Semper).	IR
<u>Nacaduba berenice berenice</u> (Herrich-Schaffer).	C
<u>N. kurava parva</u> Waterhouse & Lyell.	C
<u>Jarides aleuas coelestis</u> (Miskin).	C
<u>J. cytus claudia</u> (Waterhouse & Lyell).	IR
<u>Anthene seltuttus affinis</u> (Waterhouse & Turner).	C (det. uncertain)
<u>Theclinessthes onycha onycha</u> (Hewitson).	IR
<u>Lampides boeticus</u> (Linnaeus).	C
<u>Catochrysops panormus platissa</u> (Herrich-Schaffer).	IR
<u>Everes lacturnus australis</u> Couchman.	IR
<u>Zizina otis labdalon</u> Waterhouse & Lyell.	IR
<u>Zizeeria alsulus alsulus</u> (Herrich-Schaffer).	IR
<u>Freyeria trochylus putli</u> (Kollar).	C
<u>Candalides margarita margarita</u> (Semper).	C
<u>C. helenita helenita</u> (Semper).	C/IR
<u>C. absimilis</u> (Felder).	C/IR
<u>C. erinus erinus</u> (Fabricius).	C
<u>Philiris kamerungae lucina</u> Waterhouse & Lyell.	IR (det. uncertain)
<u>P. ziska</u> (Grose-Smith).	IR
<u>Megisba malaya nigra</u> (Miskin).	C

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-ooOoo-

A flight of the chequered swallowtail.

By I.C. Fenselau. *

My occupation as an apiarist takes me over much of Victoria during the year. This winter my bee-hives were located at Sea Lake and towards the end of August I noticed many Papilio demoleus stheneleus W.S. Macleay, in the area.

August was an exceptionally dry month inland and gusty northerly winds were general over most of the state and inland New South Wales on the 26th of August. Over the next three days I sighted approximately 45 Papilio demoleus stheneleus all flying in the same direction from north to south.

Many of the Papilio slowed their flight to inspect any scrap bits of honey comb on the ventilation holes in the bee-hives. This enabled me to easily collect a few perfect specimens for my collection.

Several Eurema smilax (Donovan) were also sighted with the same flight direction. Last spring in Victoria I only sighted two P. demoleus stheneleus one at Dimboola on the 12th of September and the other near Elmhurst in October.

-ooOoo-

* 'Koorigul', Buckland Street, White Hills, Bendigo, Victoria. 3550.



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THE
VICTORIAN ENTOMOLOGIST



Journal of
The ENTOMOLOGICAL
SOCIETY of VICTORIA

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Membership

Any person with an interest in Entomology shall be eligible for Ordinary Membership. Members of the Society include professional, amateur and student entomologists, all of whom receive the Society's journal, the "Victorian Entomologist". The Society encourages corporate membership of schools and Study Groups, of Libraries, and of University and Departmental staff.

Objectives

The aims of the Society are:

- (a) to stimulate the scientific study and discussion of all aspects of entomology,
- (b) to gather, disseminate and record knowledge of all Australian insect species,
- (c) to compile a comprehensive list of all identifiable Victorian insect species, and
- (d) to bring together in a congenial but scientific atmosphere all persons interested in entomology.

Meetings.

The Society's meetings are held at Clunies-Ross House, National Science Centre, 191 Royal Parade, Parkville, V. at 8 p.m. sharp on the second-last Friday of even months, with the possible exception of the December meeting, which may be held one week earlier. Lectures by guest speakers or members are a feature of many meetings, at which there is also ample opportunity for informal discussion between members with like interests.

Annual Subscriptions, 1977.

Ordinary Member	5.00 (Aust.)	Approx. 6.50 (U.S.)
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Contributions to the "Victorian Entomologist"

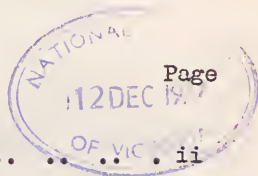
The Society welcomes contribution of articles, papers or notes pertaining to any aspect of entomology for publication within the Journal. Contributions are not restricted to Members, but should be responsible and original, preferably typed using double spacing. Statements and opinions expressed are the responsibility of the respective authors, and do not necessarily reflect the policies of the Society.

December, 1977.

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F. Hallgarten, S. McEvey, R. Manskie, O. Rogge, A. Atkins.

Diary of Coming Events

Friday, December 16, 1977. Members' Night.

Coffee will be available at meetings.

December, 1977.

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Minutes of the General Meeting held at Clunies-Ross House
on 21st October, 1977.

The minutes for this meeting will be published when they come to hand.

-ooOoo-

Minutes of the Council Meeting held at Clunies-Ross House
on 4th November, 1977.

The meeting was chaired by the President, Dr. T. New. Apologies were received from S. McEvey, Mr and Mrs J.C. Le Soeuf, D. Crosby, A. Atkins, A. Calder, N. Quick and F. Hallgarten. The minutes of the council meeting held on 16th September were read and the motion that they be passed was proposed by P. Carwardine, seconded by R. Manskie and passed by the meeting.

CORRESPONDENCE

The journal of the Queensland Entomological Society had been received.

EXCURSION

P. Carwardine gave the meeting a resume of the excursion to Toolern Vale, and it was agreed by all who attended to have been an interesting day especially for the Coleopterists.

EXHIBITION & ENTRECS PROGRAM

After extensive discussion it was decided that a three day exhibition, although a good idea in principle was probably too involved for the relatively small size of our Society. Instead, a one day working bee on the Entrecs Scheme combined with a small exhibition to be held during a weekend in the New Year, to which the public would be invited, was proposed. The committee felt that this would serve the dual purpose of stimulating interest in the Society to the public and getting some results for Entrecs.

Other ideas for Entrecs were that after discussion with Nigel Quick, we should put forward a timetable as suggested at the last council meeting, for collating and publishing some data on selected groups. The results of our endeavours could then be submitted for publication in a recognised journal.

FUTURE MEETINGS

The dates and topics for next year's general meetings were discussed.

WEEKEND EXCURSION TO LICOLA

The last weekend in February has been proposed as the possible date and this date is being checked with the booking authorities.

LIBRARY

Enquiries about the location of the library and a catalogue of its contents has been started.

Minutes of the General Meeting held at Clunies-Ross House
on 18th November, 1977.

The President, Dr T. New chaired the meeting, which started at 8pm. Apologies were received from Mr and Mrs J.C. Le Souef, Mr and Mrs G. Burns, Mr and Mrs R. Field and Messrs F. Hallgarten, A. Kinsella, S. McEvey and D. Stewart. In the absence of the Secretary, Mr J. Hallgarten acted as secretary for the meeting. Minutes of the October meeting and correspondence were deferred until a later date.

PRESIDENT'S REPORT

The President reported briefly on the previous Council Meeting —

- (a) It was tentatively proposed to organise a weekend camp at Licola on 25-26 February, 1978, subject to confirmation.
- (b) It had been decided that the Society could not proceed with a two to three day exhibition of the form earlier suggested. As an alternative it was proposed to hold a one day 'working bee' on Entrecs on a Saturday in March or April (probably that immediately following the meeting for that month), at which exhibits would be encouraged and the public admitted. This was suggested to be a way of concentrating energies on Entrecs and assessing our potential to stage a larger-scale exhibition at a later date.

ENTRECS PROGRAM

Mr N. Quick spoke on some aspects of Entrecs and the need to make substantial progress within a reasonable time. The immediate targets proposed by the Council are to complete recording of Papilionidae and Pieridae by mid-1978 and to produce maps for these groups as soon as possible. Mr Quick pointed out the need to obtain comprehensive records of common and rarely-collected species such as Pieris rapae.

NAME TAGS

The President conveyed the Society's thanks to Mrs Nola Manskie for her work in producing the new name tags.

TREASURER'S REPORT

Mr R. Condron reported a credit balance of \$468-95 plus \$233-71 in the Publication Fund.

EDITOR'S REPORT

Mr A. Calder reported that material for the December and February issues was in hand, but appealed for more articles and notes as soon as possible.

EXCURSIONS

Mr P. Carwardine gave details of the Narbethong-Acheron Way excursion to be held on 20th November.

EXHIBITS

- (1) Peter Carwardine had live case-bearing larvae of an aquatic Pyralid moth, found feeding on a species of Potamogeton at Caulfield. He appealed for any information on these larvae and the aquatic habit in caterpillars. Dr New commented briefly on the biology of British aquatic Pyralidae (Nymphula sp.).
- (2) Kelvyn Dunn displayed some butterflies recently captured in his garden.
- (3) Andrew Atkins displayed three-double sided aluminium setting cases, containing butterflies captured during his recent trip to Western Australia.

The following films were shown:

- 1) Darwin and the Insects of Brazil.
- 2) Some Current Activities of the CSIRO Division of Entomology.
- 3) Operation Phasmatid.

- and were followed by a brief discussion.

The meeting was closed at 10.00PM.

-ooOoo-

S n a p s h o t s .

By Joy Burns. *

With my husband Gordon taking an active interest in collecting beetles on our frequent trips into the bush, I decided to develop my small photographic skill to capture the beauty of these creatures in natural colour on film.

Rules and regulations regarding F-stops and shutter speeds meant many minutes working them out and using them with a camera and the help of a firm tripod. Have you ever tried to set up a tripod with camera a couple of inches away from a beetle to photograph it? They don't wait motionless until you have set up your equipment and taken that 'perfect' photograph, so many a failure resulted. At first this was very frustrating to say the least.

To photograph insects life size I bought two screw-on close-up lenses - x3 and x2. For correct photography the definition was not good; but is nature always perfectly symmetrical? When my Minolta SRT 101 was coupled with a macro lens however, I could photograph an area down to the size of approximately one square inch.

Spending an afternoon with tape, note book and electronic flash on an extension cord, I took a series of test slides - using a cable shutter release with thumb and forefinger to set off the shutter. The flash was balanced between the third and fourth finger of the same hand, leaving the other hand free to adjust the camera correctly. With experience I soon found that with normal sunlight, using ASA 50 film, I could preset the F-stop to 16, the shutter to 1/60th second (synchronized with the flash) and using either one or a combination of the x3, x2 or macro-lens and by holding the flash around the camera in line about 10 to 14 inches from the subject, I could get a reasonable result. The available sunlight does not appear to have any other effect except

(continued p.71.)

Biology of Psocids.

By T.R. New. *

Perhaps the psocids most frequently encountered by many entomologists are the small wingless flattened insects known as 'booklice', which are frequently found associated with insect remains in neglected store boxes or cabinet drawers. These, belonging to the cosmopolitan genus Liposcelis Motschulsky, represent a large (and difficult) group of Psocoptera, which are often found associated with stored products, or in other domestic situations.

Most psocids, however, are found out-of-doors on vegetation where they feed by grazing on microflora and organic debris on foliage or bark surfaces. They are largely of negligible economic importance, although a few have been implicated as vectors of the fringed tape worm of sheep (Allen, 1959) and have been neglected by entomologists other than a few devotees of small, inconspicuous insects. In Australia there are, perhaps, about 300 species, most of which are not yet named, and there has been virtually no information on the biology of these published. Indeed, biological information on psocids is rather sparse and is scattered in many journals — much of the information on temperate region forms was summarised by New (1971) and biology of tropical psocids is largely limited to work in the New World (New, 1973; Turner, 1974).

Most psocids are 2-5 mm long, and winged. The largest-known species (the Neotropical Thyrsopterinae), however, are sometimes about a centimetre in length. Classification of the order is discussed in many text books and in a few recent synoptic accounts (such as Smithers, 1972; New, 1974, 1977). Major groups are separated on number of antennal segments and on mouthpart characters, and families largely on gross features of wing venation and genitalia; the latter become increasingly important for many generic and specific identifications — and their examination necessitates dissection and subsequent mounting for microscopical work. Such preparation is an integral part of the study of psocid taxonomy, and may well be a further reason for these insects being ignored by many entomologists. Psocids are related to the 'true' lice — Phthiraptera, although none are parasitic. They have quite a long geological history, and psocid-like fossils are known from as far back as the Permian period (approximately 225-260 million years ago).

Out-door psocids are usually collected by beating or sweeping vegetation or sifting leaf litter. They are usually preserved in 70% alcohol. Few groups are typically 'litter' psocids, and most of the Australian forms are found on shrubs and trees — the 'low vegetation' forms include the genus Sphaeropsocus which has hardened forewings and looks superficially like a small black beetle. Other kinds may be specialised for living in such habitats as caves or under bark of trees. In Europe, particular kinds of psocids are associated with particular kinds of trees — particularly either conifers or broadleaved trees — but such habitat specificity has not been confirmed for

* Department of Zoology, La Trobe University, Bundoora, Victoria, 3083.

Australian species, although a number are characteristically found either on bark or on foliage as their feeding substrate or oviposition site.

Eggs are laid either singly or in batches and may be naked (many domestic psocids) or covered in bark flakes or faeces (bark frequenting psocids) or a silken web (foliage frequenting psocids). There are usually six nymphal instars, and particular psocids may have one to several generations a year: indoor psocids may breed continuously.

In common with most other insect groups, psocids are attacked by various predators and parasites. Little specific information on predators has been recorded, but it is known that such insects as Neuroptera and some Heteroptera do eat psocids and that spiders and a few mites also capture them: it is likely that most kinds of predatory arboreal arthropods will take psocid prey casually, but there is little evidence that any of these actively select psocids when a choice of prey is available. Psocid eggs are parasitised by small mymarid wasps (Alaptus spp — at only 0.2–0.3mm in length, these are amongst the smallest of all winged insects). A number of species of Alaptus are known from Australia, but the other group of psocid parasites (Euphorine Braconidae which parasitise nymphs and, rarely, adults) are much more common in the northern hemisphere. Although I have found similar adult wasps in Victoria, I've only seen two braconid larvae in psocid nymphs — of many hundreds examined. The taxonomy of this group of wasps in Australia is confused, but recent revisionary work on European and North American forms should give a sound basis for comparative work here.

Sex ratio (numbers of males: females) is often close to unity, but parthenogenesis is also widely found in the Psocoptera, and in many psocid species males are rare or unknown. This may vary in different populations — some North American psocids are known to have unisexual and bisexual populations in different parts of the species range. Generally, psocids may be regarded as solitary insects but nymphs of some are colonial and live together in groups, often under a web. This tendency is most pronounced in the family Archipsocidae (a tropical family found in Queensland) in which there may be enormous colonies of all stages under large webs which cover parts of trees. The unsightliness of such webs has led to control measures against the psocids in the New World.

The present state of psocid study in Australia may be summarised as follows: three of the six to ten specialists in the group (Dr. Smithers, Prof. Thornton and myself) are based in Australia, and are able to spend part of their research time on psocids. Emphasis to date has been on collecting and taxonomic work, emphasising zoogeographical aspects of the distribution of particular groups in and around Australia and the Pacific Region, including South America. Little biological information is available, although much of the general information based on studies in Europe and North America is relevant to closely related Australian Species.

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-ooOoo-

Requests for Information.

Two requests for information were received from Peter Carwardine last month -

Low temperature storage of eggs and pupae:

Has anybody had any experience or knows of any information regarding the storage of eggs or pupae at low temperatures (about 5-10° C) and whether this increases the length of time in that stage?

Garden plants attractive to insects:

I would like to know of any plants that will grow in Victoria that are attractive to insects, apart from Lantana, Buddleia and Michaelmas Daisy. If they have attraction to one particular group of insects, would you please mention this also. I hope to publish a list of these plants in a future issue of the Journal.

Peter Carwardine's address is: 2A Victoria Road,
MALVERN, VICTORIA 3144.

-ooOoo-

The Collection and Preservation of Dragonflies.

By J.F. Hutchinson. *

Odonata (dragonflies and damselflies) are a group of insects with which most people are familiar whether it's because of being captivated by their aerial antics or because of some old superstition about them stinging or sewing up your ears.

The Australian fauna is reasonably well known taxonomically and from a distributional point of view, however, there are many things to be learnt about their biology. These notes I hope will help people who would like to study dragonflies but may not know a great deal about how to collect and preserve specimens.

Throughout the text the word dragonfly is used to mean both damselflies and dragonflies unless otherwise stated. They can be distinguished from one another very easily — damselflies (Zygoptera) are generally fragile insects with the fore and hind wings similar in shape and venation which fold over the abdomen when at rest, their compound eyes are separated; while dragonflies (Anisoptera) are more robust, with the fore and hind wings dissimilar in venation and, usually, shape, while at rest the wings are spread, their compound eyes touch or are just separated.

Where and when to collect

Dragonflies undergo incomplete metamorphosis with the juvenile or nymphal stage being aquatic and the adult stage aerial. Both stages are carnivorous.

It is thus obvious that aquatic habitats would be a good starting place to begin collecting. Streams, rivers, lagoons and pools are all suitable, even areas where the water appears stagnant may yield some species. Just after emerging, adult dragonflies fly away from water to undergo sexual maturation so forested and open areas can also prove profitable. Species of some genera, such as Gynacantha, Tholymis and Telephobia are crepuscular and dusk collecting is necessary. Occasionally they are attracted to lights, probably coming to feed on small insects, but this is not often successful.

In the southern part of the continent, spring, summer and early autumn are the times when most adults are on the wing, while in the tropics collecting can be done all year round.

Capturing

A kite net is essential to catch adults. A swift stroke from beneath and behind is usually the best because of the wide angle of vision of these creatures. Some species tend to perch more than others and frequently come back to the same place after a short flight, while others patrol a territory.

* Horticultural Research Institute, P.O. Box 174, Ferntree Gully, Vic, 3156.

By studying their behaviour you can learn about their individual habits so as to aid you in collecting them.

Killing

Some of the more colourful dragonflies lose their body colouration after dying, this is in part due to decomposition of gut contents. Instead of immediately killing after netting, adults can be transferred to paper triangles and starved for 24 hours. This helps to void the gut. They can then be killed, however, it is often simpler to starve them in the triangles.

Setting

If possible it is best to set specimens soon after death as this may help to preserve their colours. If not, it will be necessary to relax the specimens prior to mounting, for dragonflies it is a similar technique to that used for other groups. Papered specimens can be stored in plastic containers with snap-on lids with silica gel on the bottom.

Dragonflies are pinned through the mid-line of the thorax with the pin emerging between the first and second pair of legs. The size of the pin used depends on the size of the insect, but it should be so positioned that twice as much of the pin is below the insect as above it. Because of the shape of the thorax it is simpler to set dragonflies on their back. A piece of polystyrene 3cm thick is suitable. The pin is pushed in until the top of the thorax and polystyrene are flush. The abdomen can be secured by cross pinning. Both pairs of wings are set, the hind pair at right angles to the body while the fore ones are set at a forward angle. They can be secured with strips of paper. In order to set the forewings at equal height and the hind ones at right angles, a piece of graph paper can be first placed on the polystyrene and the insects set on that.

The time a specimen spends drying depends on its size and the time of year, but a couple of weeks in summer and a little longer in winter should be adequate.

Colour preservation

There are a number of methods used which will aid in colour preservation some require elaborate facilities which are out of reach of most collectors. For recently killed insects the abdomen is cut longitudinally and the intestines removed with a pair of forceps. A piece of cotton wool of similar shape is put in and the specimen quickly dried over a heat source such as a spirit lamp or a stove. Care should be taken not to use too high a temperature as the insect may burn.

Another method is to set the specimen in the manner described above, pierce the thorax and abdomen and float the insect upside down in methylated spirits for 3-4 hours. Allow to dry thoroughly before removing the paper strips on the wings.

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Storage

Conventional store boxes or cabinets are suitable for keeping a collection of Odonata in, providing of course you take all the necessary precautions against pests.

Nymphal stages

Nymphs can be collected with a triangular shaped net by dredging or kick sampling. Specimens can be preserved in 80% ethyl alcohol or brought home alive for rearing. The latter can be a difficult but certainly not impossible task. An aquarium is suitable, with rocks and plants in which the nymphs can hide. They can be fed mosquito or other small odonate larvae. Excuviae are best stored dry on cards.

Generally the methods used for the collection and preservation of Odonata are similar to those for other groups but there are a number of variations which, in some aspects, are easier to employ but still others that are a little more difficult. Nevertheless, a well-preserved collection is essential for anyone working on the many interesting aspects of this order.

-ooOoo-

Snapshots - continued from p.65.

as a fill-in light, and, as the flash sets off at 1/1000th second, any movement in holding the camera and/or flash without the support of a tripod, is negligible. Though it may be unorthodox and awkward looking - my husband's comments are not very complimentary on some occasions - I can now attempt insect snapshots in the field with a minimum of camera complication and effort.

-ooOoo-

NOTE: The Buprestid genus Astracrus (Coleoptera).

In the Transactions of the Royal Society of South Australia, Vol.99, pt.3, pages 105-142 there appears a revision of the Genus Astracrus Laporte & Gory by Dr S. Barker of the University of Adelaide.

Two subgenera are proposed - Depollus Barker and Astracrus Laporte & Gory and the description or redescription of 39 species is given, of which 16 are new. A further three new species were described in Vol.101, pt.1, pages 11-14. Dr Barker is currently working on a revision of the Castiarina (Buprestidae). After the excellent presentation of his work on the buprestids of the genus Astracrus, we eagerly await the early and timely publication of this new work.

-Gordon Burns.

-ooOoo-

Recent Coleoptera Publications.

By A.A. Calder. *

The following publications are amongst the recent papers on Coleopteran taxonomy or biology to appear that may be of use to the amateur.

- ALDERSON, J. (1975). Descriptions of the larvae of Ceratognathus niger (Westwood) Coleoptera: Lucanidae (stag-beetles). Victorian Naturalist, 92(10): 217-221.
- _____ (1976). Behaviour and larvae of two rose chafer beetles Eupoecila australasiae (Donovan), Diaphona dorsalis (Donovan) (Coleoptera: Scarabaeidae: Cetoniinae). Victorian Naturalist, 93(3): 86-91.
- BARKER, S. (1976). Revision of the genus Astraeus Laporte & Gory (Coleoptera Buprestidae). Trans. R. Soc. S. Aust., 99(3): 105-142.
- ELLIOT, H.J. & McDONALD, F.J.D. (1972). A revision of Strongylurus Hope (Coleoptera: Cerambycidae: Cerambycinae) including a description of the male genitalia. Aust. J. Zool., Suppl. Ser. 11: 1-20.
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- LÖBL, I. (1976). The Australian species of Scaphidium Olivier (Coleoptera: Scaphidiidae). J. Aust. ent. Soc., 15: 285-295.
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* National Museum of Victoria Annexe, Abbotsford, Victoria 3067.

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- WOOLDRIDGE, D.P. (1976). Paracymus of the Australian Faunal Region (Coleoptera: Hydrophilidae). Journal of the Kansas Entomological Society, 49: 453-462.
- ZWICK, P. (1977). Australian Hydraena (Coleoptera: Hydraenidae). Aust. J. Zool., 25: 147-184.

Addendum -

- GULLAN, P.J. (1977). A revision of the genus Anilicus Candeze, with notes on related genera (Coleoptera: Elateridae). Mem. nat. Mus. Vict., 38: 209-230.

-ooOoo-

Of Passing Interest.Anacreon's Ode to the Cicada.

We pronounce thee happy, cicada,
 For on the tops of the trees,
 Sipping a little dew,
 Like any king thou singest,
 For thine are they all,
 Whatever thou seest in the fields,
 And whatever the woods bear.
 Thou art the friend of the husbandmen,
 In no respect injuring any one;
 And thou art honored among men,
 Sweet prophet of summer.
 The Muses love thee,
 And Phoebus himself loves thee,
 And has given thee a shrill song;
 Age does not wrack thee,
 Thou skillful, earth-born, song-loving,
 Unsuffering, bloodless one;
 Almost thou art like the gods.

- Henry D. Thoreau.

-ooOoo-

A Ladder is a help for Ogyris.

By J.C. Le Souef. *

From our experience in the Flinders Ranges last winter, we realised that a ladder would have been a great help on many occasions to reach the mistletoe clumps in search of larvae and pupae of Ogyris. Of course, most mistletoe can only be reached with a "cherry picker", but a pair of folding steel steps does give access to lower bunches in the big trees and most of those in the scrub.

In our annual search for a warmer winter sun at the end of June, Mary and I decided to check out areas closer to home rather than the usual distant fields in the tropical north. The country we chose was that along the road from Lake Cargelligo, north to Cobar and Bourke, east to Brewarrina and Walgett and on to Lightning Ridge, returning through Coonamble, Baradine and Coonabarabran on the Newell Highway back home.

The main object of the trip was to learn more of the distribution of inland species of Ogyris, not that we could have done much else with Lepidoptera, anyway, at this time of the year. Pottering about in the warm winter sun made it, indeed, a pleasant task.

In all we took more than 400 specimens, mostly Ogyris but some Agaristid larvae and Anthoraea pupae as well, from some thirty localities. As some are still in the larval stage and others the pupal, it will be some time before a full list can be given of those taken.

Having taken Ogyris barnardi dolphis larvae and pupae in borer holes at Port Augusta and knowing of Ogyris amaryllis amata in the A.C.T. found in the same situation, we expected to look in the same places on this trip. However, I had seen clusters of the gum moth, Anthoraea engaea on earlier trips through the district and felt that, perhaps, they might provide shelter when borer holes were not available. At Cobar I found the first clusters of these cocoons on a greyish mistletoe, apparently Phrygilanthus eucalyptiodes, and sure enough, there were several larvae visible from the exit holes in the empty cocoons. In this case they have now emerged as Ogyris amaryllis meridionalis. Later we were to find more at Mount Oxley, near Bourke, at Brewarrina and Lightning Ridge. At the latter place there were many clusters of cocoons from which we found about one larva or pupa to each ten empty cocoons. These appear for the most part to house O. b. barnardi although there are some O. a. amaryllis among them. This common inland butterfly was widely distributed on Casuarina, 'mulga', 'wilga' and other trees while Ogyris olane olane was taken in every part of the districts visited. They were almost always attended by small ants, usually two or three larvae or pupae, but up to as many as 16 on the one tree. They were nearly all taken on the prevailing box gum throughout this country under bark. On two occasions we were surprised to find that pupae found in borer holes in the mistletoe turned out to be O. o. olane, the first time we had found them in this situation.

* Godfrey Street, Blairgowrie, Victoria, 3942.

Ogyris genoveva duarings colonies were found at Lake Cargelligo, Mount Hope (N.S.W.), Cobar and Baradine varying in number from two to 100 plus. The latter in a rotten fence post at the foot of a big gum. Ogyris orectes was again recorded from Coonabarabran and so far only one O. b. barnardi has emerged from Cobar and one from Lightning Ridge.

With frosty nights there were few insects about and the only netting was the taking of Theclinestus at Cobar and Mt. Oxley. Fresh Antheraea cocoons were found at Cobar, Lightning Ridge and Baradine. An empty Trapezites shelter was also found on Lomandra at Coonabarabran. If of no other value, the results of this trip will at least provide information on Ogyris species distributions in inland New South Wales.

-ooOoo-

Report on the Toolern Vale Excursion.

On Sunday 23rd October, several members from Melbourne met with others from Bendigo at Gisborne for an excursion in the Toolern Vale area.

The day was fine and mild and we made our first stop four miles from Gisborne on the Gisborne to Toolern Vale road. There were several trees with mistletoe in the area, some larvae of Moolucia agricola were found on Daviscia, and larvae and pupae of Hesperilla donnyssa were found on Gahnia.

A lunchtime stop was made seven miles from Gisborne, here a Delias agenippe and some Anaphacis java teutonia were sighted and a large Tipulid fly with a wing span of three inches was caught.

Our last stop was at Casey's Hill two miles west of Toolern Vale, where two Papilio demoleus were captured and another sighted. There was some mistletoe in the area and one tree had a nest of Camponotus nigricops (sugar ants) at its base.

Before we set off in the morning, a certain coleopterist remarked that he doubted that the day or the country was suitable for collecting beetles. Later in the day he was heard to remark that if things kept up he would have to return home for more containers. I have since heard that he has so far mounted 90 beetles from the excursion.

Other specimens captured were:

<u>Macaduba biocellata</u> (G. & R. Felder).	<u>Zizina otis</u> (Fabricius).
<u>Vanessa itea</u> (Fabricius).	<u>Mesodina halyzia</u> (Howitson).
<u>Vanessa kershawi</u> (McCoy).	<u>Nyctomera amica</u> (White).

and beetles from the following families,

Alleculidae.	Cantharidae.	Curculionidae.
Belidae.	Carabidae.	Elaterridae.
Buprestidae.	Cerambycidae.	Passalidae.
Coccinellidae.	Chrysomelidae.	Tenebrionidae.

-Peter Carwardine.

-ooOoo-

An Addition to the Dragonfly Fauna of Victoria.

By J.F. Hutchinson. *

In mid-October, 1973 the Society held an excursion to the 'whipstick' near Inglewood. During the trip a single specimen of the libellulid dragonfly Trapezostigma loewi (Brauer) was taken which has proved to be the first record of this species from Victoria.

The species is wide ranging; known Australia wide except for some parts of inland Queensland and New South Wales. It is not known from Tasmania or the south west of Western Australia. (Watson 1974, 1977).

At this stage it is probably not established in Victoria as no further specimens have been taken, however it is interesting to note that the season 1973/74 was one in which a number of butterflies migrated to Victoria and that T. loewi is often caught well away from water indicating that it can fly long distances. The species is reasonably large with a wingspan of about 8cm. and characterised by a reddish-brown colouration on the base of the hindwings. It tends to perch on thin dead twigs.

This addition now takes the Victorian fauna to 65 species, comprising 26 Zygoptera and 39 Anisoptera and updates the list of Hutchinson (1975).

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-ooOoo-

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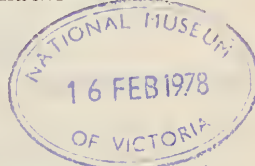
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The ENTOMOLOGICAL SOCIETY of VICTORIA

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F. Hallgarten, S. McEvey, R. Manskie, O. Rogge, A. Atkins.

Diary of Coming Events

Friday, February 17, 1978. General Meeting. Guest Speaker Dr John French,
"The use of toilet rolls in termite research."

EXCURSION TO LICOLA: Weekend February 25-26th.

Friday, March 17, 1978. Discussion forum. Other Orders.

Friday, April 21, 1978. General Meeting. Otto Rogge, "Photographic Topics"
To be confirmed.

Coffee will be available at meetings.

Minutes of the General Meeting held at Clunies-Ross House
on 21st October, 1977.

The President, Dr T. New welcomed all members and visitors - apologies were received from N. Quick, D. Crosby, S. McEvey and A. Atkins. A few moments silence were observed for Mr Jack Barnes who was a very active member of the Society in the '60s and who died recently. The minutes from the last meeting were read and a motion that they be accepted was proposed by R. Field, seconded by G. Burns and passed by the meeting. The by-law alteration determined by the Council at the last Council meeting was explained to the members present. The new by-law now reads - "All monies spent on publication of the journal shall be separately accounted for in the balance sheet, which must be audited and shall cover the financial year ending on the 31st day of December each year."

ENTRUECS PROGRAM

The decision regarding the setting of priorities was put to the meeting and it was agreed that we should try to have our records of Pieridae and Papilionidae completed by the middle of next year (1978).

EXHIBITION

Mr J.C. LeSoeuf has called for any suggestions to be put to him regarding the exhibition as soon as possible. It is a big undertaking and will require enthusiasm on the part of all members if it is to be successful.

CONSTITUTION ALTERATION

The proposed alteration to the constitution was ratified unanimously by the meeting. The constitution now reads -

- (a) ORDINARY MEMBERS are persons 18 years and over on January 1st paying an annual subscription to the society.
- (b) JUNIOR MEMBERS are members under the age of 18 years on January 1st and paying an annual subscription to the Society.

CORRESPONDENCE

Journals were received from ECOS, the Queensland Entomological Society and the New South Wales Entomological Society.

Letters were received from two potential new members and also from Mrs J. Barnard and Dr G. Gross. Two penfriend requests have been received, one from an eight year old boy in Germany and another from a Norwegian woman. Both are interested in butterflies. Further information is available from the Secretary.

TREASURER'S REPORT

The treasurer reported that we have \$532-05 in our general account and \$216-90 in the publications account. There are 68 financial members.

EXCURSIONS

Mr P. Carwardine gave us further information regarding the excursions to Toole Vale and Warbethong.

EXHIBITS

- D. Holmes had some examples of aberrations of Heteronympha merope and discussed the possibility of the association with cold temperatures.
R. Manskie showed us some examples of Ogyris amaryllis anata early stages collected recently at Canberra.
T. New had a display of South American stag beetles which were very spectacular.

Interesting talks were given by members of the Society.

F. Hallgarten gave us some hints on collecting Coleoptera.

P. Carwardine showed us how to construct supports for pupae to aid successful emergence and also entertained us with a demonstration of how to catch a butterfly without a net.

R. Field gave us some hints on collecting in the one area over a season.

T. New talked about artificial diets for larvae.

The evening was received with much enthusiasm by the members.

The meeting closed at 10.00PM and was followed by coffee.

-ooOoo-

Minutes of the General Meeting held at Clunies-Ross House
on 16th December, 1977.

The Vice-President Mr R. Field chaired the meeting, in the absence of the President Dr T. New, which started at 8pm. A welcome was extended to all members and friends especially to a new member from Barwon Heads, Mr I. Kerr. Apologies were received from Dr T. New and P. Williams. The minutes of the last two general meetings were read and the motion that they be passed was proposed by B. Condon, seconded by J. Hallgarten, and passed by the meeting.

CORRESPONDENCE

Journals have been received from the New South Wales and Queensland Entomological Societies. A note from Dr Ian Common thanking us for our good wishes on his recent misfortune had also been received.

TREASURER'S REPORT

Mr R. Condon reported a credit balance of \$468-95 plus \$233-71 in the publications account.

EDITOR'S REPORT

The editor requested more articles for the next edition of the journal.

GENERAL BUSINESS

Mr J.C. Lo Soeuf extended congratulations on behalf of the Society to R. Field on being awarded his Master of Agricultural Science degree, to P. Kelly on passing his exams with honours and to S. McEvey for passing his exams. The meeting to be held on 17th February, 1978 will consist of a talk by Dr J. French from CSIRO, Division of Building Research entitled "Termites and Toilet Rolls". It should be a most entertaining evening.

February, 1978.

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The Victorian Entomologist

The meeting to be held on 17th March is to be another forum similar to the one held in October but concentrating on orders other than Lepidoptera and Coleoptera.

A booking for a weekend at Licola has been made for the 25th and 26th February and a show of hands indicated that 15 or more people would be interested in attending. More details will be given at the February meeting or can be obtained from either the Secretary or the President in February.

EXHIBITS

Mr J.C. Le Socuf exhibited some micro-lepidoptera from his garden and some Coleoptera from Expedition Range.

B. Condron had brought a very old net owned by J. Strong. It was a folding English net of a triangular shape.

P. Carwardine exhibited a book entitled "Butterflies" by Thomas C. Emmel which contained many photographs of butterflies from around the world. He also had some very large moth larvae.

A. Atkins gave a short talk on his recent trip to the West and he gave some advice about driving across the Nullarbor.

R. Field showed some slides of butterflies in the Dandenongs, Tallarook and New Zealand.

The meeting was closed at 9.30PM and followed by coffee and supper.

-oo0oo-

WANTED TO SELL

SEEDS, SEEDLINGS OF THE SWAN PLANT

(MILKWEED) Asclepias fruticosa.

FOODPLANT OF THE WANDERER, D. plexippus.

CONTACT ALLAN ERNST

6 WARNES RD. MITCHELL

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+ * + * + * + * + * + * + * +

O B I T U A R Y .JOHN WILLIAM (BILL) BURT.

The death of John William (Bill) Burt on the 18th November 1977, at the age of 69 years, is a loss to our Victorian Entomological Society ranks. Like most of us he was an amateur, but succeeded in completing a little more than a 40 drawer cabinet, with many interesting specimens. He was also good at cabinet making and quite a few collectors have at some time had a cabinet made by him.

He first started collecting when he came into contact with Ted Harris, through their mutual love of music. Ted, at that time lived at Heatherton. "Bill", as we knew him, played the violin and viola in the Dandenong Orchestra. His wife, Elsie, who predeceased him by a year, was also an accomplished musician, playing and teaching the piano.

Bill and I had many happy collecting trips to Lakes Entrance, in my early collecting days in the "50's", where he taught me much about the habits of the local insects. It is interesting to note that some of these early collectors have specimens from areas that are no longer able to support them, due to clearing of land for housing.

I was able to acquire Bill's collection from his son, John Burt, of Glen Waverly. It consists of one full 40 drawer cabinet, and one empty one. It is gratifying to have this acquisition, both for the specimens I needed to make up some series, and also for the sentimental value - to have something that my old friend had made, and had spent so many happy hours working over.

- David R. Holmes.

-ooOoo-

IMPORTANT NOTICE."WEEKEND LICOLA EXCURSION."

Would all those people intending to take part in the excursion to Licola during the weekend of February 25-26th please contact Julio Field on telephone 754-5586 as soon as possible and preferably before February 17th.

-ooOoo-

Rediscovery of Pseudodipsas brisbanensis in Victoria.

By R.P. Field *

The occurrence of Pseudodipsas brisbanensis in Victoria dates back to 1897 when Anderson and Spry found pupae under bark of eucalypts at Cranbourne. They thought it was an undescribed species and proposed the name Lycaena cyrilus. However the species had been named earlier by Miskin (1884) as P. brisbanensis, although only one female was available for that description. Subsequently Waterhouse and Lyell (1914) considered Anderson and Spry's specimens as a distinct race of P. brisbanensis and so their name was altered to P. b. cyrilus. It is however, interesting to note that one of the main features which was used to separate the two races was the absence of the basal coppery suffusion on the upperside of the wings of males of P. b. cyrilus. This feature can no longer be used, as those specimens containing basal coppery areas have since been shown to be another species, P. cuprea (see Sands, 1965). Sands did not give any features that would distinguish brisbanensis from cyrilus other than that the bands on the undersides of both sexes of this species are very variable in position and in some males may be replaced by fine lines, especially in the race cyrilus. Common and Waterhouse (1972) state that cyrilus is similar to the typical brisbanensis except that the spots and bands on the underside of the wings are narrower in cyrilus.

The only published record of captures of P. b. cyrilus are those of Anderson and Spry from Cranbourne, however in the National Museum of Victoria there are six specimens: 1♂ and 1♀ labelled - Cranbourne, 1896, J. Kershaw Collection; 2♂ and 1♀ Springvale, E.A. (presumably Anderson) Collection, (no date); and 1♂ Springvale, 4 December, 1907, W. Roger. These are probably the only early records of cyrilus. There are no specimens of cyrilus at Canberra in the A.N.I.C.

The next record of P. b. cyrilus was by Mr C.G.L. Gooding from Moe who reared 17 specimens from Acacia baileyana during November and December 1950. The specimens were reared from a broken branch of the tree which contained a colony of ants (Crematogaster sp.) but no foliage, suggesting that the butterfly larvae are carnivorous. Three of these specimens (1♀ and 2♂) are still in Gooding's collection. The species does not seem to have been recorded from Victoria since 1950.

Over the past few years a number of localities in the Tallarook - Broadford area have been investigated for butterflies. During February and March 1977 three visits were made to a hill near Broadford (ENTRECS: YN16). A number of butterflies were taken on this hill including Ocyris genovera araxes, O. olane ocele and Theclinesthes onycha onycha. A sighting was also made of a Pseudodipsas sp. During this summer visits have been made to the same hill. The first was on December 10 but a strong southerly wind was blowing and only O. olane ocele was flying. However on December 22, which

was a hot still day, 5 P. b. cyrilus (1♀ and 4♂) were caught as they settled near the top of a 5m high eucalypt growing on the summit of the hill. The specimens were caught between 5pm and 6pm Eastern Summer Time. Hypochrysops delicia delos was also very abundant on the hill. On the 4th January, 2♀ and 2♂ P. b. cyrilus were caught between 3pm and 5pm despite a moderate southerly wind. Two other brief visits during January were on cool very windy (southerly) days and no specimens were collected, however, on January 31 one further worn male was taken.

On December 30, 1977 Andrew Atkins and Nigel Quick visited the hill and collected 3♀ and 7♂ during early and mid-afternoon. This brings the total number collected from the hill to 6♀ and 14♂, all but 2♂ being in near perfect condition.

The hill on which these specimens were collected is a volcanic plug with Silurian sandstone forming a conglomerate with quartz reefs near the summit. Farmland completely surrounds the hill. Eucalyptus-Acacia forest covers the hill forming a relatively isolated ecosystem of approximately 60 hectares. The main Acacia species in the area are A. pycnantha, a possible food plant for T. o. onycha and A. mearnsii which probably supports the population of H. d. delos. Crematogaster occur commonly on old A. mearnsii trees and in Eucalyptus stumps. A cursory search of some of these ant colonies has not yet provided any insight into the life history of P. b. cyrilus. Iridomyrmex spp. nests are also common in the area and these species cannot be discounted as being associated with P. b. cyrilus.

Some of the specimens of P. b. cyrilus from Broadford have been compared with those in the National Museum and those of Gooding's. The band width on the underside of males from Broadford is variable, some specimens having quite narrow bands while others are broad. No consistent difference could be detected between P. b. brisbanensis and P. b. cyrilus specimens in the National Museum of Victoria or between either of these two series and those collected at Broadford. The specimens in Gooding's collection have broad unbroken bands, adding further to the variability of Victorian specimens. The females are also variable, particularly in relation to the extent of the blue area on the upperside of the wings. Specimens from Broadford range from having extensive blue areas on the hindwings reaching from the base to the terminal region, to specimens where the blue area extends from the base to only the post median region. The bluer specimens have a distinct short black bar at the end of the cell on the forewing whereas specimens with the least amount of blue have only a faint spot.

There is certainly great variability between specimens of Pseudodipsas brisbanensis from Victoria. However now that many more specimens are available for examination, the Victorian specimens appear to overlap the range of variation that occurs in typical brisbanensis from New South Wales and Queensland. Further collecting of specimens from central and eastern Victoria will help to clarify the subspecies status of cyrilus. However, care must be taken in areas such as Broadford where over collecting or bushfire may destroy what is possibly a small colony of this rare butterfly.

ACKNOWLEDGMENTS :

I am grateful to Dr A. Neboiss and Mr A. Calder for allowing me access to specimens in the National Museum of Victoria and Mr E. Edwards for information on specimens in the A.N.I.C. I am also indebted to Mr C.G.L. Gooding for supplying information on Pseudodipsas in his collection and allowing me to examine this material. I am also grateful to Andrew Atkins for commenting on this article.

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-ooOoo-

Another distribution record for Pseudodipsas brisbanensis cyrilus.

By Andrew Atkins. *

Following the captures of this Lycaenid from Victoria this season a fresh male specimen was collected near the summit of Flinders Peak, You Yangs. The butterfly was found flying around 'Black wattle' (Acacia mearnsii) at 1400 EST on January 13, 1978. Other specimens of Pseudodipsas, probably the same species, were observed in the You Yangs in 1976.

-ooOoo-

* 18/17-19 Spring Road, Springvale South, Victoria. 3172.

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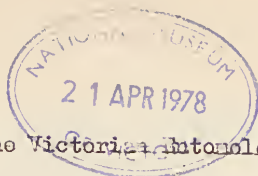
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D. Hallgarten, S. McEvey, R. Manskie, O. Rogge, A. Atkins.

Diary of Coming Events

Friday, March 17, 1978. Discussion forum. OTHER Orders.

Friday, April 21, 1978. General Meeting. Otto Rogge, "Photographic Topics".

Friday, June 16, 1978. ANNUAL GENERAL MEETING.

Friday, August 18, 1978. General Meeting - 'Entrecs' Workshop.

Friday, September 15, 1978. General Meeting.- Members' slides and exhibits.

April, 1978.

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Minutes of the Council Meeting held at Clunies-Ross House
on Friday 10th February, 1978.

The meeting opened at 8pm and was chaired by the President Dr T. New. Those present included Mr and Mrs R. Field, Mr and Mrs J.C. Le Soeuf, Mr A. Atkins, Mr R. Condron, Mr P. Carwardine, Mr D. Crosby and Mr A.A. Calder. Apologies were received from Mr O. Rogge and Mr R. Manskie. Minutes of the last meeting were read and the motion that they be accepted was proposed by J.C. Le Soeuf, seconded by Mr R. Field and passed by the meeting.

CORRESPONDENCE

Two journals of the Queensland Entomological Society were received.

TREASURER'S REPORT

The balance in the general fund at the end of 1977 was \$468-95 and the balance in the publications fund was \$273-31 and there were 69 financial members.

EDITOR'S REPORT

The editor reported that it had been impossible to obtain a different coloured cover for this year's journal and so it was decided to keep to grey coloured covers in the future.

There was some discussion regarding the advertisement of seeds of butterfly food plants and it was decided to charge a minimal fee per line.

Some interest was also shown in obtaining a complete copy of "Wings and Stings" and xeroxing them and selling them.

The library was also discussed and Dr T. New offered to make a catalogue of the books and also suggested the possibility of storing the material at the Plant Research Institute. It is no longer possible to store the material at the National Museum.

GENERAL BUSINESS

Meetings until June were discussed. The next meeting is on the 17th February and Cr J. French will be the speaker for what promises to be a very entertaining evening. The following meeting will be held on the 17th March (24th March is Good Friday) and will be in the form of a forum similar to that held last year but the topic will be Orders other than Lepidoptera and Coleoptera.

The Licola weekend is organised and it is hoped that many members will attend. A tentative date for the ENTRECS weekend has been set as the 29th April. On this date it is hoped that members will bring their specimens of Pieridae and Papilionidae along to the Victorian Plant Research Institute (Victorian specimens only) and that their Entrecs reading can be determined. It is probable that the public will be invited to attend also.

Our membership over the last year has dropped mainly through people not paying their dues. There have been very few resignations. To help overcome this problem it was decided to issue an invoice to remind people that their subscriptions are now due.

The meeting closed at 9.15pm.

Minutes of the General Meeting held at Clunies-Ross House
on 17th February, 1978.

The meeting was chaired by the President Dr T. New and twenty-three members and friends attended. Apologies were received from Mr and Mrs J.C. Le Soeuf, Mr R. Condron, Mr S. McEvey, Mr N. Quick and Mr O. Rogge. Mr D. Crosby proposed that the minutes of the last General Meeting be taken as being correct and was seconded by Mr P. Kelly and passed by the meeting.

CORRESPONDENCE

Journals from the Queensland Entomological Society and the Australian Entomological Society were received.

TREASURER'S REPORT

The treasurer was unable to attend so figures of the balance were recorded as being the same as at the last committee meeting i.e. \$468-95 in the general fund and \$273-41 in the publications fund.

EDITOR'S REPORT

The editor had nothing to report after the last council meeting except to ask for more articles for forthcoming issues of the journal.

GENERAL BUSINESS

Final arrangements were made for the Licola weekend on the 24-25th February. The President reported that it appears possible that a number of current office bearers and committee members will not be able to continue in their positions after July and any members who would be willing to stand or any suggestions regarding suitable people to fill these vacant positions would be most gratefully received. The positions that are likely to fall vacant are vice-president, secretary and editor.

EXHIBITS

Mr R. Field displayed a large collection of butterflies collected recently in Northern N.S.W.

Dr T. New displayed parasitic wasps collected on the field trip to the Acheron Way.

Mr D. Crosby had a small collection of butterflies including a recently discovered species.

Mr K. Dunn had examples of small specimens of certain species including a very tiny Cabbage White butterfly.

Mr P. Carwardine had an interesting book from the Forestry Department.

SPEAKER

Dr J. French, Senior Research Scientist from CSIRO, Division of Building Research gave us an interesting talk about the use of toilet rolls in termite research. His talk was illustrated with slides and all members enjoyed the evening very much. The discussion finished at 9.30pm.

Our next meeting is on the 17th March and will take the form of a forum on Orders other than Lepidoptera and Coleoptera.

April, 1978.

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The Victorian Entomologist

Minutes of the General Meeting held at Clunies-Ross House
on 17th March, 1978.

The meeting was chaired by the President Dr. T. New and sixteen members and friends attended. Apologies were received from Mr and Mrs J.C. Le Socuf, N. Quick, P. Williams, D. Holmes and L. White.
The minutes of the last general meeting were accepted by the meeting.

TREASURER'S REPORT

The general fund has \$329-88 in it and the publication fund has \$233-71 in it. There are 43 financial members at the moment. Last year's financial report has been audited and is reproduced below.

EXCURSION REPORT

It was agreed by all people who attended the weekend excursion to Licola that a most successful and enjoyable time was had by all. It was suggested that we hold a weekend excursion every summer, perhaps over a long weekend.

LIBRARY

Thanks are extended to Mr D. Crosby for his generous donation of journals to the library. The housing of the library is still under discussion.

APRIL MEETING

The April meeting will be a general slide night. All members are asked to bring their slides of interest along.

EXHIBITS

Mr A. Kinsella displayed some butterflies caught at Licola, Queensland and N.S.W. Mr D. Crosby exhibited parasites of butterflies, mostly of skippers. Interesting talks were given by Mr R. Field, Mr A. Atkins, Mr D. Crosby, Dr T. New and Mr F. Hallgarten. All talks dealt with various aspects of other Orders of insects excluding Lepidoptera and Coleoptera. The meeting closed at 9.30pm. Unfortunately coffee can no longer be served after meetings because the coffee machine has broken down.

-ooOoo-

Ocybadistes walkeri -again.

Nine specimens (including 3 females) of the hesperid Ocybadistes walkeri sothis Waterhouse were collected from grass patches on the Red Cliff fore-shore at Black Rock, Melbourne on February 21st, 1978. The species was very common in sheltered Ti-tree scrub where it flew with Taractrocer papyria papyria (Boisduval), Dispar compacta (Butler) and Cnidalides hyacinthinus hyacinthinus (Semper). O. walkeri was previously recorded from Melbourne by Andrew Kinsella (Victorian Ent. 7(4): August, 1977) in March last year.

- Andrew Atkins.

-ooOoo-

New Guinea Butterflies - Part IIIThe Road to Wau.

By R.H. Fisher *

The road to Bulolo and Wau from Lae, built originally by Australian Army Engineers during World War II, has been considerably upgraded and carries a fair amount of traffic to and from these goldfield towns. The distance to Wau is only about 130 kilometers but there is much to see. We left early in a Toyota Landcruiser with Andre Millar and two drivers, Amos and Lahep in the front and Dick Zweifel with Joy and me in the back. Andre, our guide, had an excellent knowledge of New Guinea orchids; Dick was a herpetologist from the American Museum of Natural History, New York, and was collecting frogs. Dick dined with us in Lae on several occasions, and later used to wander off into the Botanic Gardens in search of frogs, armed only with some plastic bags and a torch, and a wide-brimmed hat to protect his spectacles from the heavy rain which usually began falling about 8pm. If successful, he would sit up half the night with his frogs, hoping to record their calls with some very fine equipment he had brought with him from America.

For the first 20 kilometers or so from Lae the Wau road follows the Markham Valley and passes through coastal rain forest. On a sunny day the most conspicuous butterflies are often pierids and the largest and most common of these is usually Catopsilia pomona, but there are many other species from such genera as Delias, Cepora and Appias, flying sometimes near the ground but more often feeding at flowers quite high up in the trees. Bright yellow Eurema spp. abound along the edges of the road, flying low over the secondary growth which develops where the forest has been cut. Near Lae I have collected three species, E. hecabe, E. blanda and E. candida. The latter, with the yellow wings of the male and the white wings of the female banded so uniformly black, are pretty to watch, especially if several cluster together to suck moisture from the damp sand along the road. All three species are represented by numerous subspecies throughout both the Australian and Oriental regions.

Soon after the road left the Markham Valley we stopped where the forest had been cleared and I found much to interest me. The subfamily Danainae was well represented on the forest edges, particularly by the red and brown Danaus ferrugineus and black and blue D. hamata. Velvety black or brown Euploea species were also abundant and usually easy to capture, as they fly quite slowly and are not particularly distracted by the sniping movements of a net. Perhaps this arises from the fact that they enjoy a fair degree of immunity from attack by birds because of their distasteful nature.

I never ceased to wonder at the diversity of the genus Euploea in New Guinea, and I am still uncertain of the identity of some of the specimens I collected. The wing measurement (twice the length of the costa of the forewing) is less than 60mm in some species and as much as 130mm in the striking blue-black E. callithoe and in E. phaenareta. Individual variation

* 463 Goodwood Road, Cumberland Park, South Australia, 5041.

within a species seems quite marked at times, giving a false impression of the number of species collected but, nevertheless, I feel sure that there are many that still await description in this group. Although most species are velvety brown or brown-black with white, often tooth-shaped markings there are some with a deep green suffusion, such as E. treitschkei which I caught at Salamaua. Other species have rich blue spots and some have forms which are uniformly pale blue or violet instead of brown. The sexes are easily distinguished as the male forewings have bowed inner margins, and in most species there are very distinctive sex-marks in the form of linear or elliptical grey patches on the male forewing or near the costa of the hindwing. This large genus is restricted to the Australian and Oriental regions and little is known about the life histories of the various species.

The road now followed the Wampit River to its headwaters and we crossed the divide at Zenag to reach the watershed of the Watut River. Here the forest was replaced by extensive grasslands. We stopped to walk across a field and climbed into a steep-sided gully to some remnant forest where Andre hoped to find some orchids. I collected a few specimens of Symbrenthia hippocle, a small nymphalid, and several small lycaenids. But there was little else in the way of butterflies, or orchids, so we went on down the road which now followed the Snake River to its junction with the Watut River. Here we stopped to collect about twenty specimens of Pachliopta polydorus, a papilionid, velvety black and white above and with crimson spots beneath the hindwing, and with a crimson abdomen. This attractive butterfly was plentiful in several areas that I visited in New Guinea and was often attracted to a blue-flowered plant that sometimes occurred along the roadsides. It is represented in northern Queensland by the subspecies queenslandicus.

Following the Watut River upstream we soon came to its tributary, the Bulolo River, and we reached the town of Bulolo in time for lunch. Here, for the first time, I collected the birdwing butterfly Ornithoptera priamus and shared for a moment the delight experienced by A.R. Wallace, so aptly described in his book "The Malay Archipelago", when he first held a live specimen of this magnificent insect and admired its brilliant green and velvet black wings. The butterfly was not uncommon in Bulolo but I was content with collecting a pair - it seemed wrong to kill such a beautiful creature. The brilliant metallic blue Papilio ulysses was also plentiful and several specimens came within reach of my net when they came to feed at a hedge of flowering hibiscus. Present too, was the black and yellow papilionid, now burdened with the awful name of Troides oblongomaculatus, but I knew it then as T. helena, a much prettier name for such an attractive species. The larvae of this butterfly feed on Aristolochia vinos (along with many other tropical Papilionidae) and in Lao I met Henry Ohlms, who encouraged the local school-boys to collect him pupae from these plants in the forest. Henry always had thirty or so pupae of this butterfly in his sitting room. As they emerged he kept any aberrant specimens and let the remainder out his front door, much to the surprise of anyone who chose that moment to visit him.

Now the road closely followed the Bulolo River and we passed many long and sterile mounds of rubble, dumped unwanted onto the river's banks by the gold-mining dredges. The enormous rusting dredges, flown piece-meal into the

valley before the war are still operational, and seemed out of place in this otherwise beautiful countryside. We turned off the road to visit a plantation, and stopped at a once-stately homestead, now decrepit but reminiscent of an era almost past. We had cold drinks on the verandah and watched amused at the antics of a tame kokomo bird which, with clipped wings, bounded kangaroo-fashion across the lawn towards Lahop and Anos, who took refuge in the Land-cruiser. These large ungainly birds have a colourful, outsized bill which makes them at once both menacing and comical.

Back towards the road I collected a good series of a pearly-white butterfly, no doubt an Elodina species, and very similar to our Australian E. padusa. I have other specimens of this genus from other parts of New Guinea but there is usually some variation in the shape of the black apical area of the forewing and identification remains uncertain. Soon we reached Wau, where we were to spend the night at the old but comfortable Wau Hotel. As there was little daylight left we first went to see the Wau airstrip, scene of some critical fighting during World War II. The strip has a remarkable slope, and it is said that any aircraft not airborne when it reaches the lower end soon becomes so when it drops off the edge. A sign on the road at the end of the strip warns motorists to beware of approaching aircraft.

We had seen a lot to interest us this day, but perhaps the most remarkable sight was yet to come that evening.

-ooOoo-

ENTRECS DATA BANK
Identification of Butterfly Species.

In assuming that contributors will by this stage have completed extracting and forwarding data relevant to the Pieridae and Papilionidae, it is not expected that any doubts or uncertainties will have arisen in regard to identification or taxonomy of any species within these families. Some contributors however are now pressing ahead with data from other families, and it seems desirable at this stage to suggest treatment for a number of Lycaonid taxa, and simplify retrieval of data. It should be noted that such treatment does not necessarily conform to the taxonomy in currently-available literature, nor should it be regarded as anything but a simplification for the purpose of recording data.

It is suggested that the name Ogyris amaryllis meridionalis be abandoned in favour of treating this butterfly as a subspecies of Ogyris howitsoni, under which name data should be entered. Candalides hyacinthinus simplex is regarded as a distinct species, and data should be entered under the name Candalides simplex. An unpublished (as of February 17, 1978) revision of the genus Theclinessthes, and possible taxonomic changes within the genera Neolucia and Theclinessthes render it undesirable to detail those anticipated changes, and it is suggested that contributors should contact the scheme coordinators prior to filling in data sheets for any species within these genera. Theclinessthes albocincta (Wth.) is now recognised as a distinct species and has been reared on Adriana hookeri from N.W. Victoria.

- W.N.B. Quick.

Butterflies of the Daly River Area, Northern Territory.

By J.F. Hutchinson *

Previously (1973) the author published a list of butterflies collected at the Daly River Crossing and its environs. That list was compiled from collecting done in January 1972. Since then a number of other visits have been made to the area, and while the main pre-occupation was not Lepidoptera, specimens were collected. The present list updates the previous one by adding new records. It has been decided to publish this list in full and make some attempt to compare it with another area in the "top end" of the Northern Territory - Alligator Rivers. Some notes on geographical distribution and species of interest are also given.

The "top end" has a total butterfly fauna of about 106 species of which 70 have been recorded from Daly River and 63 from the Alligator River. Table 1 (see below) lists the number of species known for each family from the "top end" and compares it to those taken at Daly River and those from the Alligator Rivers area. The records for the Alligator Rivers have been taken from Common (1973).

TABLE 1

COMPARISON OF THE TOTAL NUMBER OF BUTTERFLIES KNOWN FROM THE
"TOP END" WITH TWO LOCALITIES WITHIN THE NORTHERN TERRITORY.

| FAMILY | C & W** | DR*** | AR**** |
|--------------|---------|-------|--------|
| Hesperiidae | 31 | 11 | 17 |
| Papilionidae | 5 | 4 | 2 |
| Pieridae | 16 | 14 | 5 |
| Nymphalidae | 24 | 22 | 18 |
| Lycaenidae | 30 | 19 | 21 |
| TOTAL: | 106 | 70 | 63 |

** C & W = Common and Waterhouse (1972)

*** DR = Daly River

**** AR = Alligator Rivers (Common, 1973)

It is not surprising that the two areas have numerically comparable faunas as they are similar in a number of ways. Both have a similar latitude (13°S) and the soils, vegetation and climate share some common aspects. The difference in the number of Pieridae is probably not that significant as most are widely spread and not localised as some of the Lycaenidae.

The Hesperiidæ are poorly represented from the Daly River collection with only eleven of the thirty-one species possible, taken. There are a number of reasons for this: their "hill topping" habits were not extensively exploited, they may not have been in the area or they were not flying when collecting was done. The hesperiid fauna is exclusively Torresian with all species being found within the province, nine of which are found only in the Northern Territory, and twenty-two more widely distributed (Table 2), (see below). Three endemic species were collected- Taractrocera dolon diomedes, Ocybadistes walkeri olivia and O. flavovittatus vesta.

TABLE 2

GEOGRAPHICAL DISTRIBUTION OF NORTHERN TERRITORY BUTTERFLIES

| FAMILY | Wide
Distribution | Torresian | | TOTALS |
|-------------|----------------------|--------------------|--------------|--------|
| | | N.T. and
beyond | N.T.
only | |
| Hesperiidæ | - | 22 (20.8) | 9 (8.3) | 31 |
| Papilionidæ | 1 (1.0) | 2 (2.0) | 2 (2.0) | 5 |
| Pieridæ | 7 (6.6) | 6 (5.5) | 3 (2.7) | 16 |
| Nymphalidæ | 9 (8.6) | 10 (9.5) | 5 (4.5) | 24 |
| Lycaenidæ | 4 (3.8) | 16 (15.2) | 10 (9.5) | 30 |
| TOTALS | 21 (20) | 56 (53) | 29 (27) | 106 |

NB. Figures in parenthesis represent %'s expressed against the grand total.

Four of the five species of Papilionidæ were collected, Protographium loosthenes geimbia was not, being only known from a few specimens from the Alligator Rivers district (Common and Waterhouse, 1972).

The family Pieridae is well represented with fourteen of the sixteen species taken. Exceptions being the widespread essentially Torresian Euroma horia and the rare Appias albina albina.

Also well represented were the Nymphalidæ with twenty one of the twenty four species taken. Of those not taken, Yoma sabina parva is considered "not

common" and Hypolimnas antilope albula is known only from a single male (Common and Waterhouse, 1972). The other, Hypolimnas alinae darwinensis has been taken at Daly River Crossing (Le Solle, 1971). It has been included in the main list as occurring at Daly River but has not been collected by the author. Specimens of Danaus genutia alexis were taken during the dry season of 1974, usually in open shady areas. Frequently they were found flying with D. chrysippus petilia which they resemble in both appearance and flight with the former gliding more. Another interesting find were large numbers of Phalanta phalantha araca during May 1974. It was not uncommon to see a hundred or more adults flying about their foodplant Petalostigma, with all stages of the life cycle available. It appears to fly all year but it was only on this one occasion that they were seen in such large numbers.

Of the five families of butterflies collected the Lycaenidae were the second most poorly represented with only eighteen of the thirty species taken. There are ten lycaenids in Australia that are known only from N.T. specimens, of these, four were taken- Virachola similis dalyensis, Hypolycaena phorbas ingura, Narathura micale anydon and Nacaduba kuraya felsina. Others may not be in the area (eg. Ogyris amaryllis parsoni and Adaluna uremelia) or fly high in the foliage of trees or close to the ground in grassy areas.

Le Solle (1971) collected Candalides gilberti from Daly River Crossing but it was not collected by the author. Recently Daniels (1976) described the life history of Hypochoerops theon nedocus, a butterfly recorded only from the Iron Range, Claudie River district of North Queensland. The larvae feed on the epiphytic fern Drynaria quercifolia, which has only recently been discovered in the Northern Territory (Jones & Clemesha, 1976). This species may be found in the Northern Territory as the food plant is known from Blackfellow Creek and the Alligator Rivers area.

Table 2 lists the geographical distribution of the Northern Territory butterflies. It can be seen that the fauna is overwhelmingly northern, with eighty-five of the one hundred and six species (80%) being Torresian, of which twenty-nine (27%) are known only from the Northern Territory and the remaining fifty-six (53%) are more widely spread throughout the province. Twenty-one (20%) have a wider distribution.

List of butterflies known from Daly River and its environs.

Family - HESPERIIDAE.

Pasma polysoma (Lower).

Neohesperilla crocea (Miskin).

Taractrocera dolon dionedes Waterhouse.

T. ina Waterhouse.

Ocybadistes walkori olivia Waterhouse.

O. flavovittatus vesta (Waterhouse).

Telicota colon argus (Plötz)

T. ancilla baudina Evans.

Cephenes trichopepla (Lower).

Parnara amalia (Semper).

Pelopidas lyelli lyelli (Rothschild)

Family - PAPILIONIDAE.

- Graphium eurypylus nyctinus (Waterhouse & Lyell).
Papilio canopus canopus Westwood.
P. demoleus sthenelus W.S. Macleay.
Cressida cressida cassandra (Waterhouse & Lyell).

Family - PIERIDAE.

- Catopsilia ponona ponona (Fabricius).
C. pyranthe crokera (W.S. Macleay).
C. scylla etesia (Hewitson).
Eurena brigitta australis (Wallace).
E. hecabe phoebus (Butler).
E. snilax (Donovan).
E. sana (Butler).
E. laeta lineata (Miskin).
Elodina perdita walkeri Butler.
Delias argethona fragalactea (Butler).
D. nysis aestiva Butler.
Anaphaeis java teutonia (Fabricius).
Cepora perinale scyllara (W.S. Macleay).
Appias paulina ega (Boisduval).

Family - NYMPHALIDAE.

- Danaus genutia alexis (Waterhouse & Lyell).
D. chrysippus petilia (Stoll).
D. affinis affinis (Fabricius).
D. hamatus hamatus (W.S. Macleay).
Euploea core corinna (W.S. Macleay).
E. sylvester pelor Doubleday & Hewitson.
E. darchia darchia (W.S. Macleay).
Melanitis leda bankia (Fabricius).
Mycalesis sirius sirius (Fabricius).
M. perseus perseus (Fabricius).
Hypocysta adiante antirius Butler.
Ypthina arctoa arctoa (Fabricius).
Polyura pyrrhus sempronius (Fabricius).
Hypolimnas bolina nerina (Fabricius).
H. nisippus (Linnaeus).
H. alinona darwinensis Waterhouse & Lyell.
Precis hedonia zelina (Fabricius).
P. villida calybe (Godart).
P. orithya albicincta (Butler).
Cethosia penthesilea paksha Fruhstorfer.
Phalanta phalantha araca (Waterhouse & Lyell).
Acraea andronacha andronacha (Fabricius).

Family - LYCAENIDAE.

Virachola snilis dalyensis Le Souef & Tindale.
Hypolycaena phorbas ingura Tindale.
Narathura araxos eupolis (Miskin).
N. nicalo anydon (Waterhouse).
Prosotas dubiosa dubiosa (Semper).
Macaduba kuraya felsina Waterhouse & Lyell.
Catopyrops florinda estrella (Waterhouse & Lyell).
Janides phaseli (Mathew).
Anthea seltuttus affinis (Waterhouse & Turner).
A. lycaenoides godeffroyi (Semper).
Theclinesthes onycha onycha (Hewitson).
Lampides boeticus (Linnaeus).
Catochrysops panormus platissa (Herrich-Schäffer).
Euchrysops onejus enidus Waterhouse & Lyell.
Zizina otis labradus (Godart).
Zizeeria knysna karsandra (Moore).
Z. alsulus alsulus (Herrich-Schäffer).
Freyeria trochylus putli (Kollar).
Candalides gilberti Waterhouse.

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The ENTOMOLOGICAL SOCIETY of VICTORIA

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F. Hallgarten, S. McEvey, R. Manskie, O. Rogge.

Diary of Coming Events

Friday, June 23, 1978. ANNUAL GENERAL MEETING.

July. Proposed Phillip Island Excursion.

Friday, August 18, 1978. General Meeting - 'Entrees' Workshop.

Friday, September 22, 1978. General Meeting - Members' slides and exhibits.

Friday, October 20, 1978. General Meeting - Guest Speaker: Prof. Whitten.

June, 1978.

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The Victorian Entomologist

Minutes of the Council Meeting held at Clunies-Ross House
on Friday, 31st March, 1978.

The meeting opened at 8pm and was chaired by Dr T. New and was attended by Mr and Mrs R. Field, Mr and Mrs J.C. Le Soeuf, Mr D. Crosby, Mr and Mrs G. Burns, Mr R. Manskie, Mr A. Calder, Mr O. Rogge and Mr P. Carwardine. Apologies were received from Mr S. McEvey and Mr N. Quick. Minutes of the last meeting were read and the motion that they be passed was proposed by Mr J.C. Le Soeuf, seconded by Mr A. Calder and passed by the meeting.

EDITOR'S REPORT

The editor reported that he had enough material for the coming issue but required more articles for the next issue in June.

GENERAL BUSINESS

Office Bearers for 1978-1979:

As it seems likely that a number of council members will have to resign due to other commitments a number of positions will fall vacant. Anyone who would like to nominate for or be nominated for a position is asked to contact the President or Secretary before the Annual General meeting in June. (A nomination form is included in this issue for the convenience of Members — Editor.)

Entrecs Weekend:

The entrecs weekend (Saturday) has been postponed due to organisational difficulties. It has now been decided to hold the August Meeting as a practical 'Entrecs Night', with the emphasis being on how to use the maps and fill out the data cards. Members will be asked to bring along specimens so that we can work on specific examples.

Library:

Dr T. New has collated all material we have in our library but we are still looking for a permanent storage place. We have duplicate copies of some issues of certain journals and these will be offered to members at half price.

Journal Production:

The matter of external typing for the Journal was raised again. The estimated cost for one year was \$130-00. Further enquiries are to be made. The Secretary also raised the question of why many libraries received our Journal gratis. It was decided to write to all the libraries concerned and inform that due to rising costs we are no longer able to supply the journal free of charge and if they wanted to continue receiving our journal they should remit \$5-00.

The cost of back issues held in stock was also raised. Mr G. Burns proposed that we have a uniform cost of \$1-00 for each back issue to cover costs of printing and storage. If an issue is unavailable it was decided to xerox the issue and charge the purchaser the cost of xeroxing plus 20%.

June, 1978.

Over-seas subscribers will also be charged for extra postage and handling..

Excursions:

A number of places for future weekend excursions were suggested by Mr S. McEvey, including the Grampians. Mr P. Carwardine also suggested that some people might like to visit Philip Island this winter to look for the place where the 'Wanderer' overwinters.

Future Meetings:

The April Meeting will consist of a talk by Mr O. Rogge on Insect Photography. The Annual General Meeting will be held in June when Dr T. New will deliver the Presidential Address for 1978. The August meeting is to be a practical 'Entrees' night. At present it is thought likely that our September meeting will consist of a member's night — member's slides and exhibits will be welcomed. For the October meeting it was decided to ask Professor Max Whitton to address us; Professor Whitton is an expert in insect genetics. The December meeting is to be the normal Christmas meeting.

The meeting was closed at 9.15pm.

-ooOoo-

Minutes of the General Meeting held at Clunies-Ross House
on Friday, 21st April, 1978.

The meeting opened at 8pm and was chaired by Dr T. New. Apologies were received from Mr D. Crosby and Mr F. Hallgarten. The proposal that the minutes published in the journal be accepted as printed was put by Mr A. Calder, seconded by Mr R. Field and passed by the meeting with the minor amendment that the audit sheet which was impossible to reproduce in the April issue will appear in the next issue. (The audit sheet is reproduced here on a single sheet. —Editor.)

CORRESPONDENCE

Journals were received from the Queensland and New South Wales Entomological Societies. The \$100-00 deposit paid for the Licola campsite was refunded in full. The book "Butterflies of South Australia" is now available and order forms were made available at the meeting.

TREASURER'S REPORT

The Treasurer reported a credit balance of \$552-93 and in the publication fund \$233-71. The Society may look into the possibility of purchasing a duplicator for its own use. There are 59 financial members at the present time. A vote of thanks was passed to our honorary auditor Mr Kevin Ross.

EDITOR'S REPORT

More articles are still required for the next edition of the Journal to be published in August. The possibility of using outside typing for the Journal had been checked but at \$56-40 for each issue it seems to be too expensive and a large increase in membership fees would result to offset this cost.

EXCURSIONS

A proposal that an excursion be made to Philip Island this winter to search for the overwintering populations of the Wanderer butterfly was made.

ANNOUNCEMENTS

Andrew Atkins leaves for an extended overseas trip on Sunday 30th April and our best wishes are extended to him and thanks for all the help he has given the Society were acknowledged.

Congratulations were extended to Ross Field on being accepted into The University of California at Berkeley to study for his PhD. He and his wife and daughter will be leaving in early September for 3 years.

Our sympathy was extended to Nigel Quick on his recent illness and we all hope he makes a speedy recovery.

Dr Ian Common is still accepting information for the new edition of his book on Australian Butterflies but he wants it as soon as possible.

EXHIBITS

Mr G. Burns had some examples of most spectacular beetles purchased in Bangkok recently.

Mr M. O'Connor had some specimens collected in the Ayers Rock - Flinders Ranges region last year.

Mr P. Carwardine had some moth larvae growing on artificial diets of lima beans, yeast and additives.

Mr K. Dunn had a spectacular photograph of a Cairn's Birdwing feeding.

The meeting itself consisted of a slide show given by Mr O. Rogge. The quality of the slides was excellent and the accompanying talk was both informative and enjoyable. Our sincere thanks were extended to Otto for giving us such an interesting evening.

-ooOoo-

Minutes of the Council Meeting held at Clunies-Ross House
on Friday, 19th May, 1978.

The meeting opened at 8pm and was chaired by our esteemed President. The meeting was attended by Mr and Mrs R. Field, Mr and Mrs J.C. Le Soeuf, Mr and Mrs G. Burns, Mr S. McEvey, Mr F. Hallgarten, Mr A. Calder and Mr P. Carwardine. Apologies were received from Mr and Mrs R. Manskie and Mr D. Crosby. The minutes of the last Council Meeting were taken as read and the motion that they be passed was proposed by Mr J.C. Le Soeuf and seconded by Mr G. Burns and passed by the meeting.

June, 1978.

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The Victorian Entomologist

CORRESPONDENCE

Correspondence was received from the Queensland and New South Wales Entomological societies.

EDITOR'S REPORT

There was considerable discussion of the production of the Journal in the future and outside typing costs were produced. The cost is approximately \$56-40 for 80 copies of 12 pages. Outside typing would necessitate standardization of the size of the Journal and almost certainly would lead to an increase in subscription rates, but it was felt that the benefits obtained would justify this. Enquiries are going to be made to see how the Australian Entomological Society produces and keep their costs down.

NEXT MEETING

The next meeting is the Annual General Meeting and nomination forms are now available from the Secretary. Mr R. Field will take the chair. Although nomination forms are now available, nominations will still be accepted on the night of the meeting.

FOLLOWING MEETINGS

Future meetings were discussed briefly and remain as published in the last issue of the Journal, except for a few amendments to the dates.

The meeting closed at 9pm.

-ooOoo-

June, 1978.

24

The Victorian Entomologist

BOOK REVIEW -

J.C. Le Souef:

Bibliography of the Australian Butterflies (Lepidoptera: Hesperioidea and Papilionoidea). 1773-1973. Australian Entomological Press, Groewich. 1977.

M.S. Moulds.

In these modern days when everyone seems to be in a hurry, it is difficult to imagine a young man so dedicated to his task that he should spend all his spare time for some thirteen years in producing this fascinating volume. It is fascinating in that here, is recorded and condensed the thrills of collectors over 200 years from the early, far-away taxonomists in their musty museums⁺ to the present day youngsters writing a note on their experiences in the field with a net.*

To the casual collector there is a fund of information to be gleaned just by flipping through the pages but to the serious taxonomists, this book will be of inestimable value. One has only to look at the grubby volume of Musgrave's Bibliography on the National Museum shelves to realise how much it is used compared with its neighbours.

In view of the fact that Max referred so many of his references to both living authors and experts in every field during the compilation of the manuscript, it would, indeed be difficult to find cause to comment in any way except with the greatest admiration of his monumental work.

-ooOoo-

EXCURSION NOTICE
PROPOSED EXCURSION TO PHILLIP ISLAND

In July 1973 an excursion was held to Phillip Island and located the overwintering site of Danaus plexippus. It is proposed to visit this location again, possibly during the weekend of July 2nd or 9th, rendezvousing at Dandenong. The final decision and details of the excursion will be announced at the June meeting. Would anybody who would like to go but will not be at that meeting please phone Peter Carwardine on 509-0622 during office hours ON FRIDAY. For those who miss the meeting, details can be obtained by phone during the following week, June 30th.

-ooOoo-

+ Maybe the author finds Museums musty, but I find such institutions to be most invigorating.

* I assume the Author didnot mean to say that the youngsters wrote their notes with their collecting nets, but rather with pens — an interesting thought though. — Editor.

A Collecting Trip to Western Australia:A List of Butterflies Captured and some Biological Notes.

By Andrew Atkins *

This was my first collecting trip to Western Australia, so armed with notes of data from reference books and several collections, locality maps and directions provided by 'Zoo' and Mary Le Souef and Grant Miller I set off. I commenced collecting at Cocklebidy on the western side of the Nullabor on 20th October, 1977, then drove across the Fraser Range to Norseman. I then travelled south to Salmon Gums, collecting in the Mallees of Scadden. The country here was very dry — in fact most of southern Western Australia had received well below average rainfall this year as well as the previous two years. When I reached the coast at Esperance strong winds and threatening thunder storms began to limit collecting. These conditions remained practically throughout the remainder of my two week stay in the West.

Nevertheless, I managed to collect quite a few Hesperidae and Lycaonidae as well as some robber flies in the sunny breaks. At Esperance the swamps and dune hill-tops proved to be good collecting spots.

Further west at the Stirling Ranges a number of Lycaenids were flying on the ridges and hill tops. In some of the damp gullies larvae of two species of skipper were collected. In the more heavily timbered areas Ogyris were quite plentiful.

By the time I reached the west coast the weather had degenerated to cold gusty winds and rain squalls. One species of Hypochrysops was taken at 0715 (Perth Time) on a hill near Albany. Very little was collected in the temperate forests in the south-west corner of the State. By contrast, Bunbury proved to be a very good collecting area, in spite of habitat destruction by land development schemes. The coastal sand dunes provided several species of Lycaonid and Hesperid and hill-topping Bombylids and Asilids (Diptera) were common. Behind the dunes the Satyrid butterflies Geitoneura klugi and Geitoneura ninyas were flying beneath the weeping peppermints (Agonis flexuosa). Here also the larvae and pupae of a species of Theclinesa (currently under description by Dr Atihiro Sibatani) were found on a small sand dune shrub (Adriana sp.).

Further north near Australind the large low flying Lycaenid Ogyris idno was captured. Collectors who have not seen this fleeting species might be interested in its rather distinctive habits. At 1015 some males, and possibly females, were seen flying through the Tuart forest, some 3-4 metres from the ground, and dropping to the forest floor to visit Pimelea and other flowers. By 1100 several females were seen flying rapidly around a sandy embankment and settling on the ground close to low bushes, where they retreated under the branches near the base, facing outward, but apparently not laying eggs. Under some of these bushes were nests of a dark

Camponotus ant. Some of these nests, and other nests at the base of larger trees such as Banksia sp., were excavated but no Lycaenid larvae or pupae were found. At noon a few Q. idio were seen hill-topping on the higher dunes. Later, at about 1400-1530 hours, several males were seen flying up and down a road cutting close to the female resting sites. The specimens collected from this area were in very fresh condition. A few skippers and Heteronympha nerope were also collected in this area. Here also a broad-leaved species of Patersonia was found and several pupae of Mesodina halyzia were collected from tent-like shelters made from the leaves of this food-plant.

By now there was little time to travel to Geraldton but a trip north of Perth to Bindoon, with improving weather, enabled me to collect more Ogyris and some skippers. At Chittering I collected a good series of Hypochrysops halyaetus flying on an ironstone hill top. On the return trip east of Perth empty pupal shells of Ogyris spp. were found under tree-trunk bark, especially in areas near Southern Cross and Coolgardie. The collecting trip in Western Australia was completed on the 8th of November when a very pale species of Theclinesthes (possibly the Acacia feeding T. onycha) was taken at Fraser Range.

The list that follows includes all the species of butterfly that I collected on this trip to Western Australia. An asterisk beside a locality indicates a range extension for that species not recorded by Common and Waterhouse (1972). Following the list some life-history notes are included also unrecorded by these authors.

Family - HESPERIIDAE.

Trapezites sciron sciron Waterhouse & Lyell, 1914.
Seaddon, Australind.

Anisynthoides argenteoornatus argenteoornatus (Hewitson), 1868.
Bunbury.

Hesperilla domnysa albina Waterhouse, 1932.
Lake Coogee (near Freonantle), Seaddon.

Hesperilla chrysotricha chrysotricha (Meyrick and Lower), 1902.
Esperance, Stirling Ranges, Albany.

Motasingha dirphia dirphia (Hewitson), 1868.
Esperance, Manglinup, Albany, Bunbury, Bindoon.

Motasingha atralba anapus Waterhouse, 1937.
Cocklebidy, Seaddon, Salmon Gums.

Mesodina halyzia cyanophracta Lower, 1911.
Stirling Ranges, Australind, Bindoon.

Croitana croites (Hewitson), 1874.
Bunbury.

Taractrocera papyria agraulia (Hewitson), 1868.
Esperance*, Bunbury,

Family - NYMPHALIDAE.

Goitonoura ninyas ninyas (Waterhouse & Lyell), 1914.
Bunbury.

Goitonoura klugii klugii (Guorin-Monerville), 1830.
Scadden, Esperance, Bunbury.

Heteronympha nerope duboulayi (Butler), 1867.
Australind.

Vanessa kershawi (McCoy), 1868.
Scadden.

Vanessa cardui (Linnaeus), 1758.
Bunbury.

Family - LYCAENIDAE.

Jalmenus inous Hewitson, 1865.
Bunbury, Point Peron.

Jalmenus icilius Hewitson, 1865.
Mundaring Weir.

Ogyris idno idno Hewitson, 1862.
Australind.

Ogyris proetes Hewitson, 1862.
40km N of Salmon Gums*, 38km NE of Albany*, Stirling Ranges.

Ogyris amaryllis meridionalis Bethune-Baker, 1905.
Bindoon.

Hypochrysops halynotus Hewitson, 1874.
Chittering.

Hypochrysops ignita olliffi Miskin, 1888.
Albany.

Theclinessthes nr. onycha onycha (Hewitson), 1865.
Fraser Range.

Theclinessthes sp.
Esperance (small dark form), Bunbury (larger pale form).

Neolucia agricola occidentis Waterhouse & Lyell, 1914.
Esperance, Stirling Ranges, Bunbury, Australind, Chittering.

Candalides cyprotus cyprotus (Olliff), 1886.
Stirling Ranges.

Candalides acastus (Cox), 1873.
Esperance, Stirling Ranges, Bunbury.

Candalides hyacinthinus simplex (Tepper), 1882.
Stirling Ranges.

Candalides heathi heathi (Cox), 1873.
Cocklebidy, Bunbury.

Life-History Notes -Anisynthoides argenteoornatus argenteoornatus:

Egg dome shaped, 0.95mm diameter, 17-19 distinct vertical ribs, pale yellow-green, laid on stems and below leaf-blades of Acanthocarpus preissii (Xanthorrhoeaceae); larva, larval shelter, pupa similar to that of the subspecies insula described by Burns (1951) and Common and Waterhouse (1972).

Hesperilla donnyssa albina:

Larva and pupa similar to that of typical race described and illustrated in Common and Waterhouse (1972), but smaller and paler; pupal cap variable, but paler, smaller and more finely granulated than those of the eastern Australian subspecies; foodplant Gahnia trifida.

Hesperilla chrysotricha chrysotricha:

Egg semi-hemispherical, oval in horizontal cross-section, 2mm largest diameter, 1.25mm smallest diameter, approximately 54 fine vertical ribs, pale green; foodplant Gahnia trifida and also a large tough Gahnia sp. at Stirling Ranges; larva, pupa similar to that described for the subspecies plebeia by Common and Waterhouse (1972).

Motasingha dirphia dirphia:

Egg dome-shaped, approximately 2mm diameter, almost smooth with very fine irregular vertical ribs, pale yellow-green, laid beneath the leaf of a small flat-leaved Lepidosperma sp. that grows on sand-dunes; larva and pupa similar to those described for the subspecies dilata by Common and Waterhouse (1972).

Motasingha atralba anapus:

Egg semi-hemispherical, oval in horizontal cross-section, 1.5mm largest diameter, 1.1mm smallest diameter, 40-48 fine vertical ribs, pale green, laid on the edge of a leaf of Gahnia lanigera; larva, pupa similar to those described for the typical race by Common and Waterhouse (1972).

Croitana croites:

Egg round, hemispherical 1mm diameter, 22 vertical ribs, pale yellow-green; first instar larva 3mm long, head and prothoracic plate shiny black, body pale yellow with fine cilia on abdominal and posterior segments. The life-history details of this species, previously undescribed, were obtained from an egg dissected from a female collected at Bunbury. The egg subsequently hatched but the larva refused to eat several possible food-plants provided. Several adult females were seen at Bunbury flying around grasses in sand-dune hollows but they did not oviposit. This species has very similar habits to A. argenteoornatus, resting on sand and land-snail shells. The females of C. croites also rest on the yellow flower-heads of Conostilis radicans or C. spinuligera (Haemodoraceae: Amaryllidaceae) apparently to avoid detection, the underside of the wings blending well with the flower-heads. The first instar larva of this species is slimmer and more elongate than that of the Trapezitine A. argenteoornatus. The egg and first instar larva are very similar to those of Procidosa.

REFERENCES :

COMMON, I.F.B. and WATERHOUSE, D.F. (1972). -- "Butterflies of Australia".
(Angus and Robertson, Sydney).

ACKNOWLEDGEMENTS :

I wish to thank Mr and Mrs J.C. Le Souef and Dr C.G. Miller for notes directions and maps relating to Western Australian material and to Mr W.N.B. Quick for foodplant identifications and comments on the manuscript.

-ooOoo-

L E P I D O P T E R A Q U I Z.

Can you find the following butterfly names in this maze ?

OKNZEPHGBOBRAPZBESUDLNYA
YLYAPYASEIARCUNTEOTCGTSL
YDILLASSWORDTAILTAVOLLTW
LCAHZMDATLNDHECBAHITYGD
CHSLJWRALCWCWTPINOALLOA
KPOLYEPHILIMETIUSZTEFAONS
TIHWPRZEBRGHBINGGBIPFANWZ
YTAPLEBARANGCROGWUBSHOI
DKITVPTINBLICIOSLAUNUNIRA
AKIPPPPOBRELAUSBUPTADNIBE
SWALSOAETSLADEPRYZENICH
LYELLCHOWSWALLOWTAILTASO
EDGABPBAFOGEPANTERDSWAUP
ZAXPAUSTRALIANADMIRALMBG
TLOLLEYCTEIMPCHITEGRAST
IDPUNIOXTJDACKPALMETFYLA
AEUTHCAJTYZENICALLNOWIBP
OTSBAJALIDEGYNAROLAWHTM
ENKAINBELINDREDYEARORPNZ
YIPGAOTNARGTIDGNARODEREE
EACOPPERRJEZGRASSYELLOWK
CPHAMADRYADLCABOFTUNIONB
KIRDLARTSUAEITHWLAIRCEPHI
UMBDOEZGWOLLEYKCAJNOINUIS
IEGNAIRTEULEVICIERGOYALDH

1. Fritillary
2. Swallowtail
3. Painted Lady
4. Australian Admiral
5. Cabbage White.
6. Redeye
7. Skipper
8. Jezabel
9. Imperial White
10. Union Jack
11. Pearl White
12. Big Greasy
13. Blue Triangle
14. Swordtail
15. Copper
16. Canopus
17. Birdwing
18. Orange Migrant
19. Grass Yellow
20. Crow
21. Hamadryad
22. Palmfly
23. Bushbrown
24. Xenica
25. Ant Blue
26. Copper
27. Plumbago

-- Editor.

-ooOoo-

Don't Neglect the Fluorescent Light.

By Gordon Burns *

I have used a 15watt fluorescent light with an actinic blue tube for a number of years now and on warm summer nights I try and find some time to put it out for an hour or so.

By doing this, it has been possible to build up quite a collection of insects without having to take more than a couple of stops from my front door. Below is a list of the longicorn beetles (Coleoptera: Cerambycidae) taken at such a light on my front porch at Mornington, over the years.

Subfamily - CERAMBYCINAE

Tribe - OLEINI

Xystrocera virescens Newman.

Tribe - CERAMBYCINI

Pachydissus sciricus Newman.

Tribe - HESPEROPHANINI

Phacodus obscurus (Fabricius).P. personatus Erichson.

Tribe - PHORACANTHINI

Phoracantha synonyma Newman.P. scirpunctata (Fabricius).P. punctata (Donovan).Tryphocaria frenchi Blackburn.Epithora dorsalis (Macleay).Atesta angasi var. unicolor
Carter.Allotisis discreta (Pascoe).Coptocercus aberrans (Newman).

Tribe - CALLIDIOPINI

Ectinope spinicollis Pascoe.Betholium cleroides (White).B. signiferum (Newman).Adrium artiflex Newman.

Tribe - NEOSTENINI

Neostenus saundersi Pascoe.

Tribe - TESSAROPHIATINI

Tessaromma undatum Newman.

Tribe - STRONGYLURINI

Lygesis nendica Pascoe.

Tribe - PIESARTHERINI

Piesarthrus marginellus Hope.Coptopterus ceresioides (Pascoe).

Tribe - URACANTHINI

Scolecobrotus westwoodi Hope.Uracanthus loranthei Lea.U. pertenuis Lea.Rhinophthalmus nasutus (Shuckard).

Tribe - CALLIPROSONINI

Syllitus rectus (Newman).

-ooOoo-

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WRITE FOR CATALOGUE

April, 1978.

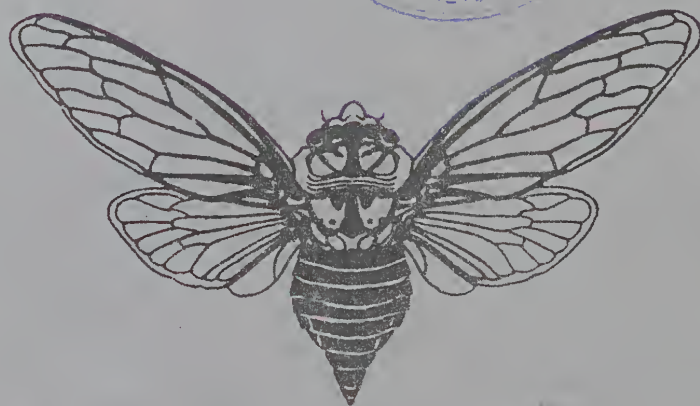
HON. TREASURERS REPORT:Statement of receipts and expenditure for the year ended 31st December, 1977.

| | | | |
|--|-----------|--|----------|
| Credit Balance B/Forward | \$481-86 | | |
| <u>RECEIPTS</u> | | | |
| Bank Interest (General A/c) | \$15-38 | Journal production, paper, stencils etc. | \$170-30 |
| Subscriptions 1977 | \$269-00 | C.B. Licence fee | \$ 40-00 |
| Ex. Subs., Journal Sales | \$ 15-80 | Jubilee Dinner | \$416-60 |
| Donations | \$ 8-70 | Entrecos expenses | \$ 67-95 |
| Donated goods sales | \$ 1-10 | Visitors book | \$ 12-50 |
| Advertising Sales | \$ 35-50 | Postage | \$ 22-37 |
| Jubilee Dinner receipts | \$ 370-00 | Secretary's expenses | \$ 13-17 |
| C.B. Licence cover | \$ 40-00 | Hire of Projector & Cafe Bar | \$ 25-50 |
| Publications fund inc. \$10-00 donation
plus \$6-81 interest. | \$233-71 | Credit Balance Cheque A/c. | \$468-95 |
| | | Credit Balance Publications Fund | \$233-71 |

\$1,471-05\$1,471-05Truly audited K.J. Ross (signed).16 March 1978.

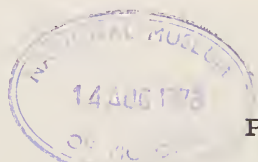
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-oo0oo-

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The ENTOMOLOGICAL SOCIETY of VICTORIA

Office Bearers

PRESIDENT

Dr T.R. New, Zoology Dept., La Trobe University, Bundoora, VIC. 3083.

VICE-PRESIDENTS

Mr D.F. Crosby, 7 Russell Street, Toorak, V. 3142. Telephone 20-5377.

Mr J.C. LeSoeuf, Godfrey Street, Blairgowrie, V. 3942. Telephone 059-88-8413.

Hon. Secretary: Mrs N. Manskie, 8 Smith Road, Springvale North, V. 3160.
Telephone 546-3673.

Hon. Treasurer: Mr R. Condron, 96 Shannon Street, Box Hill North, V. 3129.
Telephone 88-6300.

Hon. Editor: Mr J.C. Le Soeuf.

Councillors: Mrs J. Burns, Mrs M. Le Soeuf, Messrs A. Calder, P. Carwardine,
S. McEvey, R. Manskie, O. Rogge, D. Stewart.

Diary of Coming Events

Friday, August 18, 1978. General Meeting - Entrecs Workshop.

Friday, September 22, 1978. General Meeting - Members' slides and exhibits.

Friday, October 20, 1978. General Meeting - Guest Speaker: Prof. H. Whitton.

Friday, December 15, 1978. Members' Christmas Surprise.

Friday, February 16, 1978. Members' Forum.

Minutes of the Annual General Meeting held at Clunies-Ross House
held on Friday 23rd. June, 1978.

Dr.T.New chaired the meeting which opened at 8.P.M. The 27 members and visitors were made welcome. Apologies were received from D.Hollies and N.Quick as well as Mrs.Nola Stewart. The proposal that the Minutes of the 1977 Annual General Meeting be accepted as printed in the August, 1977 issue of the Journal (Vol.7:No.4) was proposed by Ross Field and seconded by Peter Carwardine and passed by the meeting.

CORRESPONDENCE

Journals and newsletters were received from the Queensland and New South Wales Entomological Societies, circulars from the Ian Clunies-Ross Foundation regarding a seminar, Standards Association of Australia regarding printing, Australian Institute of Energy and the A.N.Z. Bank; order forms from the South Australian Printing Department for the book "Butterflies of South Australia" by R.H.Fisher, a letter from Andrew Calder and miscellaneous monies and receipts.

Treasurer's Report

Bob Condrion reported a credit balance of \$656.00 and in the Publication Account the sum of \$242.26. There are 68 financial members to this date.

EDITOR'S REPORT

Andrew Calder reported that more material was needed for the next Journal and an apology was made to any member who may have been inconvenienced by the incorrect date appearing in the June, 1978 issue on the (April) Journal concerning the Annual General Meeting.

EXCURSION

Peter Carwardine has arranged for a small group of collectors to visit Phillip Island on Sunday July 16th., to inspect the area where the "Wanderer" butterfly overwinters. Peter Carwardine is able to remain Excursion Organiser, also he would like members to make suggestions regarding future excursions.

GENERAL BUSINESS

A permanent storage space is still being sought for the library. There are still a number of Australian Society Journals on sale at half the subscription price.

Congratulations were offered to Otto Rogge at the recent "Photoflora" exhibitions, also to Keith Hateley for the award given him in the latest Quinn's Birthday Honours list.

Dr.Tim New thanked all office bearers and council members for their continuing support during the past year; he especially thanked Mrs Julie Field, Andrew Calder and Bob Condrion.

Election of Office Bearers for 1978/79

The elections were conducted by Ross Field.

PRESIDENT

Nomination: Dr.Tim New.
Proposed: Mrs.Julie Field.
Seconded: Gordon Burns Elected.

VICE-PRESIDENTS

Nomination: J.C.Le Souef, D.Crosby.
Proposed: Mrs.J.Field, Dr.T.New.
Seconded: Mrs.J.Burns, P.Carwardine.
Elected

SECRETARY

Nomination: Mrs.N.Manskic.
Proposed: Mrs.M.Le Souef.
Seconded: R.Field. Elected

TREASURER

Nomination: Bob Condron.
Proposed: Dr.T.New.
Seconded: Mrs.M.Le Souef.

EDITOR

Nomination: J.C.Le Souef.
Proposed: Dr.T.New.
Seconded: D.Crosby.

COUNCILLORS

- (1) Nomination: Mrs.M.Le Souef.
Proposed: Dr.T.New.
Seconded: S.McEvey. Elected
- (2) Nomination: D.Stewart.
Proposed: J.C.Le Souef.
Seconded: G.Burns. Elected
- (3) Nomination: O.Rogge.
Proposed: Dr.T.New.
Seconded: R.Field. Elected.
- (4) Nomination: R.Manskic.
Proposed: Mrs.M.Le Souef.
Seconded: D.T.New. Elected

- (5) Nomination: P. Carwardine.
Proposed: B. Condron.
Seconded: Mrs. N. Manskie. Elected
- (6) Nomination: S. McEvey.
Proposed: Dr. T. New.
Seconded: Mrs. N. Manskie. Elected.
- (7) Nomination: A. Calder.
Proposed: Mrs. J. Field.
Seconded: P. Carwardine. Elected
- (8) Nomination: Mrs. J. Burns.
Proposed: Mrs. J. Field.
Seconded: P. Carwardine. Elected

THE PRESIDENTIAL ADDRESS

Dr. Tin New addressed the meeting on larval feeding in Lepidoptera. It was a most informative lecture with visual aids.

After questions, J.C. Le Souef thanked the President for his address and offered his encouragement to the new executive for continued success during the next year.

The meeting closed at 9.40 P.M.

The meeting opened at 8 P.M. Mr D. Crosby chaired the meeting in the absence of the President. Councillors present were Mr D. Stewart, Mr O. Rogge, Mr A. Calder, Mr P. Carwardine, Mr S. McEvey and Mr and Mrs R. C. Manskie.

APOLOGIES were received from Dr T. New, Mr and Mrs J. C. Le Souef and Mr and Mrs G. Burns.

The minutes of the last Council Meeting were taken as read and the motion that they be passed was proposed by Mr P. Carwardine, seconded by Mr A. Calder and passed by the meeting.

CORRESPONDENCE was received from

- i) Australian Conservation Foundation
- ii) Mr A. G. Wild
- iii) Ian Clunies Ross Memorial Foundation

EDITOR'S REPORT Mr D. Crosby reported, in the absence of the editor, that most stencils were cut and ready for the next issue of the journal. Again, more articles are needed to fill the pages. A proposal was made to print a current members list.

JOURNAL. After much discussion on cost and format of the journal, a decision was made by council, to retain the present style, until this volume is completed. (Vol. 8, No. 6, Dec. 78). Before altering the journal, extensive research will be made into cost (this may require an increase in subscription rates) and format, it might take. At the August General Meeting, members will be asked to give their opinion, on different styles of magazines and journals etc. (Members will be able to view different magazines and journals).

| | | | |
|------------|------------|---|--------------|
| EXCURSIONS | Bendigo | - | October |
| | Big Desert | - | November |
| | Licola | - | February '79 |

Mr P. Carwardine is the excursion co-ordinator. An excursion service to members is being organized - by leaving your telephone number and date and whereabouts of your destination with him, he can then forward this information to other interested members. More details at August Meeting.

NEXT MEETING. The August General Meeting (18.8.78) will take the form of an "Entrecs Workshop". Mr D. Crosby will discuss, with members, grid mapping and the compiling of data cards. Members are invited to bring along their maps etc.

FUTURE MEETINGS. Meetings remain as published in the last issue of the journal, with the exception of the February 1979 meeting - this will be a MEMBERS FORUM night, where members will be asked to speak on a particular subject.

GENERAL BUSINESS. Does the Society own a set of maps suitable for grid mapping?? If not a proposal was made that we should purchase same and these could remain in the library.

The next Council Meeting is to be held on September 29th 1978.

The meeting closed at 9.45 P.M.

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REPORT ON THE WEEKEND EXCURSION TO LICOLA.

On the morning of Saturday, 25th. February, 16 members began a weekend visit to Licola in East Gippsland. The weather was overcast early but on arrival, the weather was fine, sunny and warm, although rather windy. Everyone had arrived by 12.30 P.M. including the Dunn family who had come to visit us for the day.

After lunch many of the butterfly collectors headed back towards Licola to certain hilltops where Pseudodipsas cuprea had been caught in the past and had been sighted that morning. Others explored the surrounds of the camp and a few people travelled up to Tamboritha Saddle and the Lost Plains. The weather here was sunny and there was very little wind making it excellent for butterfly collecting.

Most people returned to the camp by 6 P.M. and after tea a pleasant evening was spent discussing our day's collecting. Sunday began with light cloud cover so after breakfast all cars headed up to the mountain again. The weather was perfect above the clouds and the collecting was quite good. Many people went further than on Saturday and came close to Mt. Tamboritha. After a late lunch at the camp, most cars headed for home. It was generally agreed that the weekend had been a great success and we should consider having a weekend excursion each summer.

Species collected in the Licola region known by the author at the time of writing:

Signeta flammeata - Burgoyne's Gap.

Dispar compacta - Burgoyne's Gap, Licola area.

Hesperilla crypsargyra

Anisynta dominula - Tamboritha Saddle.

Anisynta monticolae - Camp site.

Oreisplanus munionga - Tamboritha Saddle, Mt. Arbuckle Junct., Shaw's Ck.

Heteronympha paradolpha - Burgoyne's Gap to Base camp.

" solandri - Lost Plain to Mt. Arbuckle Junct.

" penelope - Burgoyne's Gap.

" merope - Sighted at Burgoyne's Gap.

Geitoneura klugi

Delias harpalyce - sighted.

Vanessa itea - sighted.

Graphium macleayum - sighted at campsite.

Oreixenica lathoniella - Shaw's Creek, Tamboritha Saddle.

" correa - Shaw's Ck, Tamboritha Saddle and Mt. Arbuckle.

" orichora - Lost Plain and Mt. Reynard.

" paludosa - Mt. Reynard.

Neolucia agricola - Shaw's Ck and Mt. Tamboritha.

" monticola - Base camp and Mt. Tamboritha.

" hobartensis - Shaw's Ck., Lost Plain, Mt. Reynard

Pseudodipsas cuprea - Burgoyne's Gap to Licola

Ogyris Olanc - " " " "

Zizina labradus - Mt. Arbuckle Junct.

Julie Field.

New Guinea Butterflies-Part IVWau and Mount Kaindi

By R.H.Fisher

We arrived in Wau after driving all day from Lae, and after dinner at the Wau Hotel it was our pleasure to meet for the first time Joe and Maria Szent-Ivany. Joe is a professional entomologist and, at the time, was studying moths at the nearby Bishop Museum Field Station. As we climbed the steps of his elevated house a little later, we could see a number of mercury vapour and ultraviolet lamps hanging near the windows, but we were not prepared for the remarkable sight which met our eyes when shown into the living room.

The windows of this room had been removed and the most incredible number of moths, attracted to the lights on this warm, tropical night, had flown into the room and were mostly at rest on the walls and ceiling. They came in every size and every colour and, it seemed, in every family; and there were such numbers that I could only stare and think what a valuable addition this would make to our natural history collection. Although moths rank second in my interests to butterflies, I was sorely tempted to pick them off the walls at random and place them in what killing jars I had. At this stage Joe asked me not to take any Geometridae until he had checked the specimen as he was interested in this group and was making a collection for one of the museums. Maria was doing most of the setting and had rows on boards crowded with these exquisite lacy creatures, predominantly pastel shades of green and yellow.

In the course of the next hour or so I selectively collected more than 100 moths, including a number of species from each of the families Geometridae, Uraniidae, Saturniidae and Sphingidae. The great majority of the others I could not classify at the time, so I tended to take those individuals with unusual features such as transparent wings or brightly banded bodies or wings of unusual shape. To add to the confusion a variety of beetles, some quite large, had also been attracted to the lights, and I added a few of these for good measure. Joe told me that these large numbers of specimens appear most nights at Wau, and the diversity of species occasionally includes such gems as the large saturnid Coscinocera hercules, with a span of some 20 cm. Joe and Maria have now retired to Adelaide, and Joe continues his work on Lepidoptera in an honorary capacity at the South Australian Museum. An annexe to the Wau Ecology Institute, the Szent-Ivany Laboratory, has been named in his honour.

* 468 Goodwood Road, Cumberland Park, South Australia, 5041.

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We set out quite early in the Landeruiser next morning and began climbing the winding road to Edie Creek, near the summit of Mount Kaindi. At about 1500 m the first moss forest appeared and the branches of the tall trees now bore pendant clumps of pale green lichens and mosses. The atmosphere was extremely humid and warm, due to the dense cloud which seemed to envelope everything on this particular day.

So we came to the rather hairraising sight, called "the slip". For about 100 metres the road traversed a land-slide (now bypassed with a new road location) a great yellow gash in the otherwise densely forested and steeply sloping mountainside. We crept slowly across in the Landeruiser, trying not to look down through the clouds into the deep valley way beneath us. Safely across, we soon reached the summit of Mount Kaindi to find the area well above the clouds and in bright sunshine.

There were a few pierida hill-topping just above an escarpment, but they kept well beyond my reach. Occasionally one would venture closer and I tried to catch one by chasing it along a path. The altitude (about 2500m) and the rarified air in this tropical environment became immediately apparent and I had to stop to catch my breath after running only a few steps. Thereafter I was content to stand in one spot and hope that something would come my way, but I had little success.

Andree walked into the moss forest in search of rhododendrons so I followed, in the hopes of finding something moving. It was an uncanny experience; there can be nothing more silent and still than such a forest. We walked on top of decaying vegetation choosing, where possible, a rotting log or fallen tree-trunk to support our weight. The handle of my butterfly net was almost two metres long and, poking it through the matted debris beneath the trees, I was unable to find solid bottom. Nothing moved; I saw no insects or birds, yet I could not accept that such forms of life were absent. I wondered what would appear at night and, with memories of the Szent-Ivany house still fresh, I would love to have set up a couple of U-V lights in such a place. We saw a pale pink rhododendron growing on the branch of a tree. Apparently in New Guinea many species of this group will flourish equally well in either an epiphytic or terrestrial situation. The group is interesting, too, as it is thought that the shape and length of the flowers give some indication as to which bird or which sphingid moth is responsible for fertilisation of that particular species.

Half the day had gone so we set off down the road again, past a sign giving the distance on foot, if you wanted it, to Port Moresby. The distance in days, or in weeks, may have been more appropriate. Just below we could see some sluices and an encampment, indicating that there was still gold to be had in Edie Creek. We reached the slip again and I walked across and filmed the Landeruiser as it gingerly felt its way along the unstable track. We stopped for lunch at Nami Creek where it crossed the road and Lahop showed us how easy it was to boil the billy using the sodden mushy sticks and leaves from the roadside.

I spent the next hour with bits of lunch in one hand and a net in the other collecting a variety of butterflies, most of which I had not seen before. The most conspicuous at first was Gethosia chrysipi, quite a common, fast flying species with bright red wings. There were a number of Delias spp. along the edges of the creek and I caught a good series of Delias nysa, with the chocolate brown undersides to its hind wings. None were female and I find that nearly all my Delias spp. from New Guinea are males, probably because most collecting was done in open spaces and along creeks, away from the more vegetated areas where the larval foodplants were likely to occur. In all I collected some eight or nine species which Joe Szent-Ivany tells me have been collected in the Wau Valley.

We stopped once more on the way back to Wau and I collected a single specimen of that much-sought-after species, Graphium weiskii, so like our Australian G. macleanianus in size and pattern, but with wings above coloured a beautiful shade of pale violet instead of green. The day had been interesting and productive, and our two New Guinean friends must have been well pleased, as they decorated the Landeruiser with hibiscus flowers and the coloured leaves of crotons, for the last few kilometres back to Wau.

We flew back from Wau in a Twin Otter, a remarkable aircraft which needed practically no ground space at all to take off or land. I was to be thankful for this characteristic when, on another occasion, we took off from Wontoat airstrip which lies deep between the mountains near the Markham Valley, and climbed almost vertically (it seemed) through low, dense cloud until we reached the clear sunlight above. The trip back from Wau took us at times along the Snake River Valley, with wing-tips almost touching the steep hillsides. We passed a suspended waterfall, and then soon came out from the mountains and dropped low over coastal rainforest and native villages, before passing over the muddy Markham mouth to touch gently on the Lac airstrip. Today we would have landed at busy Nadzab, some 30 km from Lac. The wartime airfield has been rebuilt as a jetport to cope with the ever increasing demands of the air transport industry in New Guinea.

In this series of articles on New Guinea butterflies I have found d'Abrcra's "Butterflies of the Australian Region" (1971) useful for naming the various species discussed. I have avoided the use of sub-specific names as I feel that this aspect of their taxonomy is in a rather indeterminate state at the moment. Both John Womersley and Joe Szent-Ivany have been a great help in refreshing my memory with regard to the names of people and places.

'Living in Leaves'

(Summary of Presidential Address to the Entomological
Society of Victoria, June 23rd 1978)

T. R. New

Dept. Zoology, La Trobe University, Bundoora, Vic. 3083

Although many Lepidoptera are typified by freelifving phytophagous larvae, a number of more unusual or specialised feeding habits are also found. Many, for example, have taken to living inside foliage and the whole larval life may be passed inside part of a single leaf. The habit appears to have arisen independently in several groups of moths, and I want to talk tonight about how the constraints imposed by this habit are overcome, and how the biology of 'miners' may be expected to differ from that of 'normal' caterpillars. In particular, (1) the food supply available to an individual miner is often strictly limited (a single foliage unit) and must be exploited efficiently, (2) faeces may remain near the larva in the mine, rather than being dropped to the ground and (3) the relatively confined miner larvae have only limited potential for defense against or protection from non-specific parasites and predators. I shall outline some facets of the comparative biology of three rather different miners I've been studying recently - Acrocercops plebeia (Gracillariidae), which attacks Acacia spp with small phyllodes, Lobdia sp. (Cosmopterygidae) found in Acacia spp with large phyllodes and the introduced Oak-Leaf-miner (Phyllonorycter messaniella) found on a range of exotic fagaceae. These three species exploit different parts of their foliage habitats, and differ in life histories as shown in Table I.

TABLE I

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| | ACROCERCOPS | LABDIA | PHYLLONORYCTER |
|------------------------|------------------------------------|------------------------------------|--------------------------------|
| | <u>Acacia</u>
(small phyllodes) | <u>Acacia</u>
(large phyllodes) | <u>Quercus</u>
(and others) |
| OTH: | | | |
| OST | | | |
| A TUS | Native | Native | Introduced (European) |
| EGS LAID | On phyllode | In phyllode | On underside of leaf |
| ARLY INSTARS | Sap feeders | General feeders | Sap feeders |
| UPATION | Outside mine | In mine | In mine |
| ECES DEPOSITED | In mine | Mainly outside mine | In mine |
| OTINISM | Continuous | ? 2-3 | 3 |
| MINES/FOLIAGE UNIT | 1-3 | 1-15 + | → c50 |
| RELATIVE SIZE OF MINES | Medium | Large | Small |

Labdia is, comparatively, a 'generalist' form which (1) lacks the hypermorphosis found in larvae of the other species, (2) removes faeces from the mine through a hole in the 'roof' and (3) develops from eggs inserted into the phyllode by the parent moth. The other two species undergo a marked change of larvae feeding habit and form after the first few instars, from a flattened sap-feeding larva confined to the epidermis to a more general biting caterpillar. They both also retain all faeces in the mine, a further feature which is regarded as 'specialised'.

Part of the attraction of leaf mines to ecologists is that the 'history' of an individual miner may be preserved in a mine long after the moth has emerged or the caterpillar has been killed - all larval head capsules are usually still present, together with traces of any parasites, cocoons and pupal cases of many species, and so on. This means that even old mines can give valuable biological information.

Methodology for studying exploitation of foliage by miners is still being developed. Preliminary data on feeding by mining caterpillars are given, and briefly discussed in relation to distribution of miners between individual leaves and the potential for interference (competition) in the same leaf.

ON THE GRAPEVINE.

After months of illness and several operations it will be a relief to members to know that Nigel Quick is again well on the road to recovery.

It was indeed a pleasure to see Keith Hateley's name included in the Member of Australia (AM) list of the Queen's Birthday Honours. Rather surprisingly, he is in this way linked with that doyen of Australian Rules Football, Ron Barrassi.

Among the list of photographers in the Photoflora Competition, Otto Rogge was awarded one of the few Highly Extended apart from the various section winners of the competition.

A sweet and sour note came recently with the news that Ross, Julie and Belinda Field would be leaving shortly for the United States. Ross has been accepted at the Berkeley University, California for his Ph.D. Sweet that he is going to this seat of entomological learning and sour that we will be losing the pleasure of their company.

Gordon and Joy Burds are planning a six months collecting trip in the Spring. Gordon wants to go to Queensland and Joy to the West. Guess what? They're going to the West!

Andrew Atkins is really having a ball, revelling in the vast collections at the BM. With his knowledge, he is a great help to Dick Vane-Wright, particularly among the Heperiidae.

Dave Holmes is slowly settling in to his new home at Dromana. He's hoping that the 20'x12' "bug room" will be sufficiently large to house his cabinets till he starts to collect in earnest in his retirement.

A first instar has hatched in Max Mould's household with Barbara producing a bouncing young Timothy. They are preparing to lumber off to the West in the Spring in their 4WD on the cicada and hawk moth trail. Young Timothy will soon learn that they breed budding entomologists tough these days!

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The ENTOMOLOGICAL SOCIETY of VICTORIA.

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S.McEvey,R.Manskie,O.Rogge,D.Stewart.

Diary of Coming Events

Friday,September 22,1978. General Meeting-Members' Slides and Exhibits

Friday,October 20,1978. General Meeting-Guest Speaker:Prof.M.Whitton.

Friday,December 15,1978 Members' Christmas Surprise.

Friday February 16,1979. Members' Forum.

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Minutes of the General Meeting held at Clunies-Ross House
held on Friday 18th. August 1978.

Dr. Tim New chaired the meeting which opened at 8.20 P.M. The 26 members and visitors were made welcome.

Apologies were received from D.Crosby, R.Field, B.Candron and L.Dunn.

The Minutes of the last General Meeting were taken as read and the motion that they be passed was proposed by A.Calder and seconded by R. Manskie.

Correspondence was received from :

- 1.The Entomological Society (N.S.W.)
- 2.The Entomological Society of Queensland.
- 3.Karger Libri.
- 4.Korean Entomological Institute.

Treasurers Report: In the absence of the treasurer, the secretary reported that, there were 68 financial members, there is a credit balance of \$695.53 and a credit balance of \$242.26 in the Publications Account.

Editor's Report: The editor requires more articles to fill the pages of the journal. The December issue will contain a current members list. The President then addressed the meeting concerning the change of format of the journal and with this change it is inevitable that there will be an increase in publication costs; therefore there will be an increase in subscription costs. After much discussion amongst members, it was proposed by G.Burns and seconded by P.Kelly and passed unanimously by the meeting that the Society will have a change in journal presentation. The increase in subscription rates will be discussed at the September meeting of the Council and put to members at the October General Meeting.

Excursions: Due to very wet weather conditions, the excursions to Bondigo has been abandoned. S.McEvey discussed the possibility of an excursion to the Mitchell River, (N. of Stratford). This will be a 2 day trip and tentative dates are 2nd and 3rd or 9th and 10th of December. A report on the recent trip to Phillip Island appears elsewhere in this journal.

P.Carwardine has generously made a donation to the library of "Insects in Flight" by Werner Nachtigall, which was greatly appreciated.

Exhibits: from Dr.T.New were a pair of ground dwelling bush crickets very obvious were their spectacular jaws. They came from Cloud's Crock, north of Armidale, N.S.W.

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Entrees

N.Quick addressed the meeting on data cards after which members were involved in a general discussion on grid mapping. Members were asked by Nigel to keep participating with Entrees as information collected will become most important.

Farewell to the Fields

Dr.Tim Now, along with the members present at the meeting, farewelled and offered best wishes to Julie and Ross Field who leave us on September 4th, 1978, to take up residence for three years in California, U.S.A.

Next meeting

The next general meeting is to be held on September 22nd, 1978. Members are asked to bring along exhibits and slides for viewing.

The meeting closed at 9.50 P.M.

Minutes of the General Meeting held at Clunies-Ross House
on Friday 22nd September 1978.

Dr.T.New chaired the meeting which opened at 8.15 P.M. Members and visitors were made welcome with a special mention of Max and Barbara Moulds of Sydney, the following being present : A.Calder, P.Carwardine, B.Condron, K.Dunn, L.Dunn, J.Hallgarten, N.Haslam, S.Henry, M.Killen, J.C.Le & M.Le Souef, S.McEvoy, R. & M.Manskie, M. & B.Moulds, Dr.T.New, D. & N.Stewart, W.Wilson.

Apologies were received from : D.Crosby, F.Hallgarten, D. & J.Holmes, N.Quick, Br.P.Williams.

Correspondence was received from:

- i.C.S.I.R.O. Environmental Research.(ECOS).
- ii.Entomological Society of Australia (NSW).
- iii.Australian Reference Research Publications.
- iv.Mr.Phillip C.Johnstone.
- v. Entomological Society of Queensland.

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- vi. Ian Clunies-Ross Memorial Foundation.
- vii. Rank Publishing Company Pty.Ltd.

The motion that the correspondence be received was proposed by J.C. Le Souef and seconded by R.Manskie.

Treasurer's Report The treasurer reported that there were 69 financial members. There is a credit balance of \$700.53 and a credit balance of \$242.26 in the Publications Account.

The motion that the treasurer's report be received was proposed by S.McEvoy and seconded by D.Stewart.

Excursion Report. A decision was made by members present to make the excursion to the Mitchell River (North of Stratford) on the weekend of December 2nd and 3rd, 1978.

General Business.

Dates to remember : 9-12 January, Australian Entomological Society Congress.
1980-16th International Congress of Entomology Japan.

Museum Society. A. Calder discussed with the meeting the forming of a Museum Society and the suggestion that the forming of this society might take members away from smaller societies. The general opinion was that this would not occur.

ENTRECS. The President again stressed that members should keep participating.

Exhibits. Dr.T.New; A booklet on the protected species of National Butterflies of Papua and New Guinea.

B.Condron : Lepidoptera from Roeflon.

J.C.Le Souef : Lepidoptera from Mt. Isa.

M.Moulds : Interesting cicadas.

A brief address was given by each exhibitor.

Films : Two excellent movie films were shown by L.Dunn, each showing butterflies, one on the Wanderer butterfly and the other on collecting at

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the Jenolan Caves.

J.C.Le Souef :Slides from a recent field trip to Mt.Isa.

Dr.T.New :Slides of a fossil wasp in amber.

A vote of thanks was given by the President to each of the members who exhibited their specimens and showed their films and slides.

The next General Meeting is to be held on October 20th 1978, the Guest Bpeaker will be Prof.M Whitton of the Melbourne University, speaking on the use of genetics in insect control.

The next Council Meeting is to be held on September 29th.

The meeting closed at 9.45.P.M.

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Minutes of the Council Meeting held at Clunies-Ross House
on Friday 29th.September,1978.

Dr.T.New chaired the meeting which opened at 8 P.M.

Councillors present were : A.Calder,P.Carwardine,J.C. & M. Le Souef, R. & N. Manskie and D.Stewart.

Apologies were received from G.& J.Burns,D.Crosby,S.McEvey and O.Rogge.

The Minutes of the previous Council Meeting were taken as read and the motion that they be passed was proposed by R.Manskie and seconded by P. Carwardine.

General Business.

There was lengthy disscission concerning the journal change with various points to consider :

i Cost-The editor is to obtain all information about the Clunies-Ross printing charges.

ii.Budget for contingency typing.

iii. Cover-Check the difference between the cost of soft or hard covers.

iv. Postage and cost of enveloping the journal.

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Subscription Increase. Council was unanimous in the decision to increase subscriptions. The proposed increases are Adults to \$8 per annum with a \$2 increase for other types of membership.

These two matters will be considered again at the General Meeting on October 20 th., 1978.

There is to be a reminder notice concerning payment and increase in subscriptions to be included in the December issue of the journal.

At present there are to be no extra meetings for 1979; it is to remain at six meetings per year.

A schedule for the 1979 meetings has been planned which includes guest speakers and film and members' nights.

A Calder is to be the Society's representative at any meetings or discussions held on the subject of the projected new National Museum.

The next Council Meeting will be held at Clunies-Ross House on November 17th, 1978.

The meeting closed at 9.15 P.M.

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Proposed Excursion to Stratford.

A two day excursion to Billy Goat Bend on the Mitchell River in Gippsland is proposed for December. This spot is just north of the Glenaladale National Park, 40 Km N.E. of Stratford. The area is a little rugged, has a variety of vegetation and probably has no nearby camping facilities.

It is hoped that Shane McEvey, who has visited the area, will lead the excursion. The distance from Melbourne is about 180 miles (288 KM). The decision was made at the October meeting, by members present that the date would be December 2nd.

Peter Carwardine.

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Collecting Butterflies at Jenolan Caves, N.S.W.

By Kelvyn Dunn

In 1973, 74, 75, I visited Jenolan Caves for periods varying between early March to early April and caught many species of butterflies.

At the Blue Lake, near the entrance to the Grotto, I found many Delias nigrina flying high above the ground along rocky cliffs. Of the specimens I saw, most were males. In flight this species appears to have one side of the wings black and the other white. I netted a couple of males and one female of Hypocysta euphemia. This was a difficult species to net for they would settle in between the cement steps where it was almost impossible to get my net. They were also very timid and would fly off quickly if disturbed but soon came back to the same area providing the sun was still warming the rocks and steps. I was fortunate to capture a female Hypochrysops byzos byzos flying with a number of Paralucia aurifer. I also noticed a few Zizina otis labradus and Pieris rapae rapae feeding freely on small flowers along the edge of the lake.

There were many walking tracks for tourists, one of which leads to a popular spot called "Butterfly Hill" (named because of the many species to be seen there). On this hill I saw many Vanessa itea. This species was to be found all over the rocks on which the sun was shining. I also saw an aberration of this species where the bright orange/yellow colouring on the forewings was replaced by white. There were several Danaus plexippus gliding round and feeding at flowers. A slow flying female of Papilio aegeus aegeus caught my attention and I captured it, but seeing that it had badly chipped wings, I decided to let it go. Other species I netted on the hill included: Anaphaeis java teutonia, Geitonoura acantha and Catopsilia pyranthe crokera. This latter was quite plentiful but a difficult species to capture because they flew rapidly and rarely seemed to land.

Near the Caves House, I caught two specimens of Heteronympha paradelpha and a few H. banksii banksii. There were several Trapezites symnoides symnoides flying rapidly over flowers and landing frequently. Precis villida calybe was another common species that I often saw sunning on bare patches of ground.

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REPORT ON EXCURSION TO PHILLIP ISLAND.

On July 16th., five years and one day after the original excursion that discovered the Danaus plexippus breeding colony on Phillip Island, a return visit was held to see what shape the colony was in.

The colony is situated on the northern slope of a large sand dune which rises steeply on the southern side of Swan Lake in the southwest of the island.

The day was fine but very windy and a few brave members arrived near Summerlands Junction at midday. After lunch we proceeded down the path to the Penguin Parade and on to the surf beach. After walking two thirds of the way along the beach, we headed over the line of dunes behind the dunes along the beach and arrived at the colony. This route is a far better one than that used by the original excursion.

The foodplant at this colony is Asclepias rotundifolia which grows on the steeply sloping side of the dune. These plants which probably originated as a garden escapee, were in flower and have been reduced to a sprawling shape about 50 cm. high by the strong winds that sweep this area, and cover an area of some 35 metres square.

Several dozen larvae and a dozen pupae were seen, the larvae mainly being in the last instar, with a few second instar. A couple of larvae and a few of the pupae were dead, apparently from a viral disease.

One recently emerged adult, which had been blown into a bush, was caught, another which had died during emergence was found. Many larvae had been blown off the foodplant by the strong winds, but due to the ground hugging habit of the foodplant, many would probably find their way back.

Several had been blown on to a patch of Tetragonia tetragonioides and were eating it, but it is doubtful that they would survive on it or even eat much.

Mark Connor was the only member who attended the original excursion also, and in his opinion there was now more foodplant and there were more larvae.

A search of nearby clumps of Lomandra failed to turn up any larvae although they were well eaten. Skipper larvae, probably Hesperilla chrysotricha, were found on Gabbia growing along the Rhyll Road.

P. Carwardine.

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THE BUTTERFLIES OF TASMANIA.

By L.E. and R. Couchman.

The dull pages of a Year Book is not the normal place that an entomologist would look for inspiration; but it is in the 1977 edition of the Tasmanian Year Book that appears the first "descriptive guide" to the butterflies of Tasmania.

The quality of the research that has gone into this paper can best be judged from the title of "References" under which appears: "Every work which contains the original description of a Tasmanian butterfly is listed, together with every work touching on the subject within the state (excepting only the vast literature dealing with the Cabbage White butterfly as a pest species).

While this information is invaluable to the taxonomist, there are sections dealing with variation, life cycle classification, habitats and comments on half a dozen endangered species, for the normal butterfly collector.

Every butterfly is illustrated, including a colour plate of the darker species, difficult to depict in black and white. In addition there is a precise comment on each species and subspecies and its distribution with reference to colour variations from one district to another and relations to mainland species.

Entomological literature is, indeed the richer for this paper, the result of so many years of observation and research. Len and Ruth Couchman are to be congratulated on their patience in awaiting the eventual appearance of this important work in print.

J.C.Ee Souef.

Recent Lepidoptera Publications.

T.R.New.

The following are amongst the recent papers on Lepidoptera biology noted. If any members require copies of these, single photostats (for private research purposes) are available from me.

SHROEDER, L.A. 1976. Energy, matter and nitrogen utilization by the larvae of the monarch butterfly, Danaus plexippus.
Oikos 27:259-264.

SCRIBER, J.M. 1977. Limiting effects of low leaf-water content on the nitrogen utilization, energy budget and larval growth of Hyalophora cecropia (Lepidoptera: Saturniidae).
Oecologia 28 :268-287.

NAKAMURA, M. 1974. An ecological study of Epinotia solandriana (L. a leaf roller on Betula ermani Cham. in the Shigama I B P area.
Jap.J.Est. 24:186-193.

SCOTT, J.A. 1975. Flight patterns among eleven species of diurnal Lepidoptera.
Ecology 56 : 1367-1377.

ROBINSON, G.S. 1976. Biogeography of the New Hebrides Macrolepidop
J.Ent.Soc.Aust.(NSW) 9:47-53

ERICKSON, J.E. 1975. The comparative utilization of cultivated and weedy unbellifer species by larvae of the black swallowtail butterfly, Papilio polyxenes.
Psyche 82:109-130

KENDALL, R.O. & MCGUIRE, W.W. 1975 Larval foodplants for twenty-one species of skippers from Mexico.
Bull.Allyn.Museum. 27:1-7.

YAMAMOTO, M. 1975. Notes on the methods of belt transect census of butterflies.
J.Fac.Sa., Hohloid Univ., (vi) 20:93-116.

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DESGO, K.V. & SARINGER, C. 1975 Photoperiodic regulation in the population dynamics of certain Lepidopterous species. Acta Phytopath. Acad. Sci. Hungaricae 10:131-139.

HARDING, J.W. 1976. Utethesia pulchelloides (Lepidoptera : Arctiidae) breeding in Nelson.

WIKLUND, C. 1977. Oviposition, feeding and spatial separation of breeding and foraging halitids in a population of Leptidea sinapis. (Lepidoptera) Oikos 28:56-68.

PRETORIUS, L.M. 1976. Laboratory studies of the developmental and reproductive performance of Heliothis armigera (Hubn.) on various foodplants. J. ent. Soc. Sth. Afr. 39:337-343.

DANTHANARAYANA, W. 1976. Environmentally cued size variation in the Light Brown Apple Moth, Epiphyas postvittana (Walk) (Tortricidae) and its adaptive value in dispersal. Oecologie 26:121-132.

-oo0oo-

Excursion Co-ordination.

It sometimes happens that two people plan excursions to similar area at about the same time. If they know of each other's plans, a change in date or locality by one party could make a more enjoyable outing. I am willing to offer a service to members, the procedure being as follows:

If you have decided on an excursion, phone me and I will tell you who is going where and when and if you are interested in any of these I will give you the phone number. It is then up to you to make the contact you desire. If none of these interest you or I have no current excursions, give me your date, location and phone number. If someone rings later and is interested in combining with you, I will pass on your phone number. They can then contact you direct. My number at home is 211 8958 and 509 0622 at work. A current list of members' excursions will be put up at meetings.

Peter Carwardine.

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ON THE GRAPEVINE.

President Tim Now and Nesta recently spent a much needed week's relax in the Murray Valley away from attending to the cultural wants of some of our youth.

Gordon and Joy Burns left for points north on September 25, bearing down unsuspecting Buprestidae. They will be calling on the few coleopterists there are up there as they make their way through NSW and Queensland.

A cheery note from Andrew Atkins tells of his continuing work on the Hesperidiidae at the BM, enjoying the last of the warm summer sun as he wrote sitting on a seat in St. James Park. It was refreshing to hear that he was guest at a recent birthday party in Richard Pengolley's flat in London. Here he could enjoy a bright night with fellow collectors away from the concentration of poring over the enormous quantities of skippers in the BM.

Max and Barbara Moulds should now be well on their way to the north west of WA. Apart from again being able to meet members at our last meeting, Max was able to have a glance at Dave Holmes collection in his brand new "bug room" and admire the rest of Dave and Joyce's new Dromana home. He was also able to see David Stewart's immaculate fossil display and his growing insect collection. David was able to start Max's collecting trip with two cicadas which were new to him.

David and Nola Stewart collected quite a few insects on a recent trip to Buchan. Among them he took several of a great emergence of cicadas for Max. But, really, the main interest in the Stewart household recently, was Nola's adding a daughter to the family breakfast table.

Young Kelvyn Dunn is again on a trip to the north with visions of adding many new species to his collection.

Shane McEvey, just returned from a few days in Tasmania, is more than enthusiastic on the prospect of a longer stay later in the year.

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THE
VICTORIAN ENTOMOLOGIST



Journal of
The ENTOMOLOGICAL
SOCIETY of VICTORIA

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as a periodical - Category B.

Supplement to 'The Victorian Entomologist'.

Issues of the Vic. Ent. over the 1973-74 season contain many references to unusual occurrences of insects within and outside Victoria. This phenomenon was noticed very early in the season, and a request for information inserted in the Journal in the form of a data sheet. As a result of a most gratifying response by members, an immense amount of data was collected, data which has been of use or of interest to entomologists working in many spheres of activity.

The present season has all the earmarks of becoming a repetition of that quite exceptional year, and it is hoped that members will again respond by both observing and recording. The data is very basic, but nonetheless most useful. All records will be acknowledged in the same manner as was done in the October, 1974 summary. Please help all you can, and return to any Council member

ABNORMAL INSECT RECORDS FOR THE SUMMER SEASON 1978 - 1979.

[illegible]

A brief note of numbers (one, few, many), of flight direction (in the case of a migratory flight), or any other feature is suggested. Please note that data is required for any family, not just Lepidoptera. A note of why the record appears unusual may be added -- e.g. "not normal during spring months this locality",

Your Name

W.N.B. Quick.

[illegible]

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The ENTOMOLOGICAL SOCIETY of VICTORIA

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Councillors: Mrs. Joy Burns, Mrs. Mary Le Souef, Messrs. A. Calder, P. Carwardine,
S. McEvey, R. Manskic, O. Rogge, D. Stewart.

Diary of Coming Events

Friday December 8, 1978 Council Meeting,

Friday, 15 December, 1978.-Members Christmas get-together. Please bring some
supper and a thermos of coffee.

Friday, 16 February, 1979-Members Forum. (Annual subscriptions due).

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Minutes of the General Meeting held at Clunies-Ross House
on Friday 20th. October 1978.

The meeting opened at 8.12 P.M. and was chaired by Dr.T.New. Twenty members were present, and apologies received were K.Dunn, L.Dunn, N.Mansk, J.Hallgarten and N.Quick.

Treasurers Report was not available

Correspondence was received from :

1. C.S.I.R.O.
2. Entomological Society of Australia (N.S.W.)
3. Mr. Hohn Fbx.

P.Kelly proposed that the Minutes of the last General Meeting, published in the October issue of the Victorian Entomologist, be taken as read. This was seconded by S.McEvoy.

Editor's Report. The editor reported on the article content of this issue.

General Business. Dr.T.New advised the meeting of estimated publication costs of the Journal for 1979 and proposed that the following increase in subscription rates apply from 1st. January 1979, to cover rises in publication and postage rates.

1. Subscription rates for ordinary membership to increase from \$5.00 to \$10.00.
2. Other Subscription rates (junior and associates) increase from \$2.00 to \$5.00.

The motion was seconded by J.C.Le Souef and when put to the meeting was carried.

J.C.Le Souef displayed an example of the proposed size of the 1979 magazine and informed members that it will be possible to photostat illustrations and photographs with the new printing system.

Programme for 1979. Meetings will be held bi-monthly-with provision for extra meetings, should they be required.

Subject for the February meeting will be a forum discussion.

April meeting. It is hoped that there will be an address, preferably on aquatic insects by someone outside the Society.

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Excursions- P.Carwardine proposed a return excursion to Licola and the response from members indicated that this will be a probable excursion for 1979.

Guest Speaker- Dr.Tim New welcomed the guest speaker for the evening.Prof. Max Whitten of Melbourne University. He spoke on "The use of Genetics in Insect Control",illustrating the very informative address with colour slide. At the conclusion of his address,S.McEvey thanked him on behalf of the Soci

Next General Meeting is to be held on December 15th.1978. Soiree. This is our Christmas meeting when it is hoped that members will bring a thermos of coffee as the machine seems to have broken down,together with that old Australian custom of "Ladies-a plate",please.

The meeting closed at 9.55 P.M.

-ooOoo-

ON THE GRAPEVINE.

President Tim New certainly stirred the fertile imaginations of journalists recently when he suggested spraying Vegemite, of all things, on crops. As a result there have been banner headlines in the Sydney press with TV appearances and even radio talk back sessions.

Kelvyn Dunn returned very satisfied with his onslaught on the north Queensland butterfly fauna with many species new to his collection. How old collectors will envy this,his first experience with collecting in the north

Gordon and Joy Burns,recently returned also from the north,going as far as Rockhampton. The highlight was a week with Ernie Adams out from Rockhampton. With typical entomological hospitality,he showed them his pet collecting spots including a day on Andrew Atkins' stamping ground,the Blackdown Plateau,with sight of the Adams homestead. The also had the pleasure of calling on Jean Harzlott learning much about the insect fauna of the Granite Belt.

Cup weekend now seems a traditional occasion for a visit to the Big Desert. This year the emphasis was rather on Coleoptera than Lepidoptera with the tea tree in full bloom and the beginning of the broom-bush. The party this year consisted of Ray and Nola Manskie,Gordon and Joy Burns,Keith Hateley,Brian and Bob O'Neill,the Sullys from Rainbow and the writer with Mary,quite a gathering! The MV lights attracted a great concentration of insects including hundreds of flying ants heralding the rain that came before dawn. It stopped before long but further storms on the horizon caused a hasty pack up and the party moved to the Broken Bucket dam,past the slippery section of the road

Word from Julie and Ross Field tells of their settling in to the new environment.With the constant work his studies entail,Ross is really looking forward to the Christmas break.

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GLOW -WORMS

By D.F.Crosby.

My first experience with glow-worms was during a holiday in January some years ago at Mt. Buffalo. (Vic.). A few hundred metres from the Chalet there is a "Glow-worm Cave."

Moved by curiosity, my wife and I together with our three children, armed with a torch, clambered through the narrow opening to the Cave and up over cold and slippery rocks to reach the main cavern. However, our path was blocked by a rock fall, but it was possible to peer through a large opening and see inside. After our eyes adjusted to the gloom, we could count thirteen little lights scattered over the roof of the cave, which would be about 20 metres wide by half as high.

The atmosphere was cold and damp, despite the high summer temperature outside. Conditions of high moisture and fairly constant low temperature are necessary for glow-worm survival. Colonies are usually found in caves with running fresh water to maintain the humidity, and a gentle, if slow air circulation to bring in the small flying insects which are food for their larvae.

During a visit to New Zealand three years ago, we were interested to see several caves with glow-worm colonies. These caves seemed to be in limestone deposits mainly, where they often occur with interesting rock formations.

A small cave at Waipu, on the North Island, south of Whangarei was the first we visited. In this less well known cave one can see the glow-worms close up.

Later we visited the fantastic cave at Waitomo with its myriads of glow-worms in an enormous cavern through which one travels in a boat with guide. The overall glow is sufficient to let you see your surroundings. But as the "worms" are sensitive to noise and light, we had to be quiet and could not take photographs.

Another cave colony was visited at Lake Te Anau in the South Island and at the Fox Glacier township there was a grotto amongst dense trees and ferns over a stream. Here it was possible to inspect the glow-worms close and photograph them.

In Australia little appears to have been written about these insect and their habitats. However, they have been recorded from Tasmania, Victoria and New South Wales.

7 Russell St. Toorak, 3142.

LIFE HISTORY

Glow-worms are actually the larvae of a Fungus-gnat and each begins life as a minute egg, measuring 0.75 mm diameter. The female fly usually deposits about 120 eggs per mating.. Each egg has an incubation period of approximately 11 days. The tiny larva that emerges is capable of emitting light almost immediately.

This newly hatched larva now begins building its nest. This is a mucous structure in the form of a hollow tube. It is held to the cavern roof by a series of threads extending from either side, as well as being pinned at each end.

The larva can move freely backwards and forwards within this tube and is able to turn end for end. About thirty threads-"fishing lines"-are suspended at regular intervals along the underside of the tube. Each line is even coated with tiny drops of acid which paralyse an insect becoming ensnared.

The principal purpose of the glow-worm's light at this stage is to attract midges carried on the air current of the stream. When a midge flies toward the light and is caught on the "fishing-lines", the larva moves along the nest to the appropriate line, grasps it in its mouth, swallows the line and so brings the insect within easy reach to be eaten then or stored for later.

As the sticky lines will blow together if too long, their length is governed by the stillness of the air. In relatively protected positions they have been recorded up to 60 cm long while 3-5 cms long in unprotected areas.

Once this black larva has grown to an approximate length of from 2.5 cm to 4 cm, it then pupates. This development usually takes about six months depending to a certain extent on its success as a "fisherman".

Pupation can be likened to a cocoon stage during which the larva is transformed into an adult fly. This process usually takes about 12-14 days. At pupation the larva shrinks in size to about 1 cm and suspends itself by a thread within a protective circle of fishing lines. A hard brownish pupa is formed and in this stage the female often attracts a male fly by the intermittent use of her light. On emergence, it is not uncommon to find two or three male flies gripping tenaciously to the pupa case awaiting the female fly's arrival. Mating then takes place and the female dies soon after egg-laying.

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The body length of the adult is just over 1 cm with wing expanse of nearly 2 cm: Its life is of only about 4 days duration and in this time mating takes place. Having mated, the fly has been observed carrying out what appears to be a suicidal practice of flying into the fishing lines. In this way it becomes a source of food for the larva.

It should be mentioned that the larva is cannibalistic. Any suggestion of over population is adequately taken care of in this manner. The uniformity of the light spacing seen in large colonies, such as at Waitomo, would seem to confirm this.

THE LIGHT

The light organs of the glow-worm are located in the tail segment of the larva and comprise four paired glands with an opaque membrane called reflector. The glands are derived from modified malpighian tubes (kidney vessels). The light process is actually the disposal of waste products by oxidation-in fact each glow-worm has a built-in garbage disposal unit.

The glow-worm's light source has been compared with that of the Firefly and does, in fact, have two of the same ingredients-"luciferin" and "luciferase"-which combine to produce light. To increase the intensity of the light, the glow-worm adds a catalyst, a substance called Adenosine Triphosphate. This is energy matter extracted from the insects previously eaten and then stored for this purpose. The glow-worm normally increases its light when hungry. In some caves the glow-worms burn brightly continuously and it is believed that the reason for this is to dispose of excess body waste caused by overeating in the presence of abundant food.

In the chemical reaction of the glow-worm's light, less than 1 % of the released energy is heat. The remainder is light, -a cold light-one of the most efficient known to man.

The glow-worm can, and does, extinguish its light. It is thought that this is done either by obscuring the reflector with a sheath-like membrane or by dissociating and burning the ingredients in the glandular tail segment. Those living out in the open, as opposed to caves, cease emitting light during the daytime.

Careful research has shown that both male and female flies intermittently emit light from the ends of their abdomens, with the females using their lights to attract males if not mated immediately on emergence.

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TAXONOMY

The New Zealand and Australian species have all been placed in the genus Arachnocampa Edwards (Diptera : Mycetophilidae) with A. luminosa (Skuse) being confined to New Zealand.

A. tasmaniensis Ferguson occurs only in Tasmania and has been taken in a number of localities, but principally Ida Bay.

A. richardsae Harrison has been described from N.S.W. with records from Newnes (railway tunnel), Blue Mountains, Gloucester and Bundanoon.

Specimens from Victoria have tentatively been placed under this species based on examples from Walhalla. Sightings from the Otways and Labertouche have not yet yielded adults for comparison.

A. flava Harrison comes from Queensland with records from Numinbah, Springbrook and Genowa.

REFERENCES

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- RICHARDS, A.M. 1960- "Observations on the New Zealand Glow-worm Arachnocampa luminosa (Skuse) 1890". Trans. Roy. Soc. N.Z. 88 (3) 559-574
- TILLYARD, R.J. 1926- "The Insects of Australia and New Zealand" (Angus & Robertson, Sydney), 352-3

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ON THE GRAPEVINE. (Cont.)

After telling members at a Council meeting earlier in the year that there was some doubt whether Nigel Quick would survive the night, it must have been with great pleasure that David Crosby recently spent a day with him in the bush in Gippsland again, his first day out for many months.

In a recent letter, Max and Barbara Moulds said that the weather was too hot for Max to chase cicadas across the north west sands so it must have been really a scorcher! After taking limited but very interesting material in the Kimberleys, they are now making their way down the coast to the far south before setting off for home again.

Ted Edwards in a "how lucky can you be" category, had an unextinguished excitement in Alice Springs recently. With two weeks cool and two hot, he was able to add much to the knowledge of the local fauna with his collecting.

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THE ENTOMOLOGICAL SOCIETY OF VICTORIA. MEMBERSHIP LIST. DECEMBER 1978

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- Dunn, Laurie, 16 Grave Ave., Dandenong, Vic. 3175.
- Dyson, David H. 110/821 Dunt Rd., South Yarra, Vic., 3141.
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Coleo.

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Lepidop.

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Lepidop.

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Lepidop, Coleop.

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4006.

Morton, D.E.A. (Tony), 25 Bella Vista Rd., Glen Iris, Vic., 3146, 253650
Lepidop, (Hesp., Pap.)

Moulds, Max S., 14 Chisholm St., Greenwich, NSW, 2065,
Odonata, Cicadellidae, Lepidop. (Sphingid)

Neboiss, Dr. Arturs, Dpt., Ento, Nat., Mus., 71 Victoria St., Abbotsford, Vic

New, Dr. Tim R., Zoology Dept., La Trobe Uni., Bundoora, Vic., 3083. 478-31
Psoco, Neuro, paras. Hymen., Ecol., Taxon.

O'Neill, Brian, 327 Francis St, Yarraville, Vic., 3013. 314-6904.
Lepidop/

Ozols, J, 43 Woodville St., Balwyn North, Vic, 3104.

Parker, Graham, 15 Victor St. Forest Hill, Vic., 3131

Quick, W. Nigel B, 20 Alimar Rd., Glen Waverley, Vic., 3150, 5608145.
Lepidop. Dist & speciation.

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Micro bio-photography, Chrysididae (hymenop.)

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Lepidop, coll/breed, gen.

Skeggs, Mstr. Adam, 37 Tullius Ave., Clayton Nth., Vic., 3168.

& Nola
Stewart, David, 15 Wynne St., West Rosebud, Vic., 3940, 059-862-705,
Lepidop, Acarina, gen ento.

Strong, John W.H., 11/1160 Dandenong Rd., Murrumbidgee, Vic., 3163, 562-271,
Gen.Ent., micro Hymen.

Vagi, Ray, 6 Beryl St., Burwood, Vic., 3125,
Lepidop.

Vardy, B.H., Maiden Gully, Vic., 3550
Lepidop.

Watkinson, Ian, Mt. Eliza.
Lepidop, gen.

Wainer, John, 241 Dandenong Rd., Windsor, 3181.
Coleop, gen ent.

White, Miss L.M., 2 Grange Ave., Canterbury, Vic., 3126.

Wild, Clyde, 19 Orsam St., Wynnum, Q., 4178,
Lepidop. medical ento, Coleop. Isoptera.

Williams, Dr. Peter, 72 Summerhill Ave., Glen Iris, Vic., 3146.

Wilson, W.F., 39 Stocks Rd., Mt. Waverley, Vic., 3149.
Lepidop.

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Excursion to Licola

It has been suggested that this excursion again take place late in Feb next. If you would like to join the party could you please advise Pete Carwardine at the next meeting.



Ento

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